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THE

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AMERICAN FARMER RURAL REGISTER.

NEW SERIES.]

JANUARY, 1872.

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THE AMERICAN FARMER

AND

RURAL REGISTER;

A MONTHLY JOURNAL OF 32 OCTAVO PAGES,

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Rare Bk Coll

Devoted to Agriculture, Horticulture and Rural Life.

Published at Baltimore, Md., by SAMUEL SANDS & SON.

The papers formerly published under the above titles have been united by the undersigned, who intend to make of the combination a journal indispensable to every progressive farmer.

The American Farmer is the oldest agricultural paper in America. It was founded in 1819 by the Hon. John S. Skinner, under whose control it reached an enviable eminence. After his retirement from its management, it passed into the hands of the senior of the present firm and was conducted by him for over twenty-five years, attaining great prosperity. Upon his severing his connection with it, he established *The Rural Register*, which speedily won high rank among its peers.

In the union of the two journals our aim will continually be to point out to the cultivator of the soil the improvements and aids to agriculture which are furnished by the discoveries of science and the inventions of art; to keep him fully advised of new processes and improved methods in culture effecting a saving either of time, labor or money; and, at the same time with exhortations to careful and thorough tillage of the earth, to persuade him to those tasteful but inexpensive decorations of the homestead which do so much towards making home attractive and strengthening the affections which cluster around it.

Our senior who has been for more than an average life-time identified with the cause of American Agriculture, and who is fully advised of the demands of the hour, will call to his aid, in the conduct of this periodical, gentlemen of scientific and practical ability, thoroughly posted in the various branches committed to their care. The junior received an agricultural education; and the interests of both editors, as land owners and cultivators of the soil, are identical with those of the great body of American agriculturists.

The position occupied for a third of century by the Senior Editor in charge of an agricultural press will be an earnest of his course in the future, as a friend to the Farmer and an enemy of every fraud and imposition which imperil the Farmer's interests or threaten his welfare.

In a word, "*THE FARMER AND REGISTER*" will be devoted to the advancement of every branch of Agriculture, Horticulture, Stock and Fruit Raising; whilst Rural Architecture and Adornment, Ornamental Planting and Gardening, and Domestic Economy will each receive such attention as to make it a welcome visitor to every cultivated rural household.

To Manufacturers, Nurserymen, Breeders of Improved Stock, &c., the Farmer will afford a superior advertising medium. No advertisement of an objectionable character will be inserted.

THE NEW VOLUME BEGINS JANUARY, 1872.

Terms of Subscription: \$1.50 a year in advance. Five copies, \$5. Ten copies, \$10. To clubs of ten or more, the FARMER will be sent at \$1 a year for each copy and an extra copy free to the getter up of club.

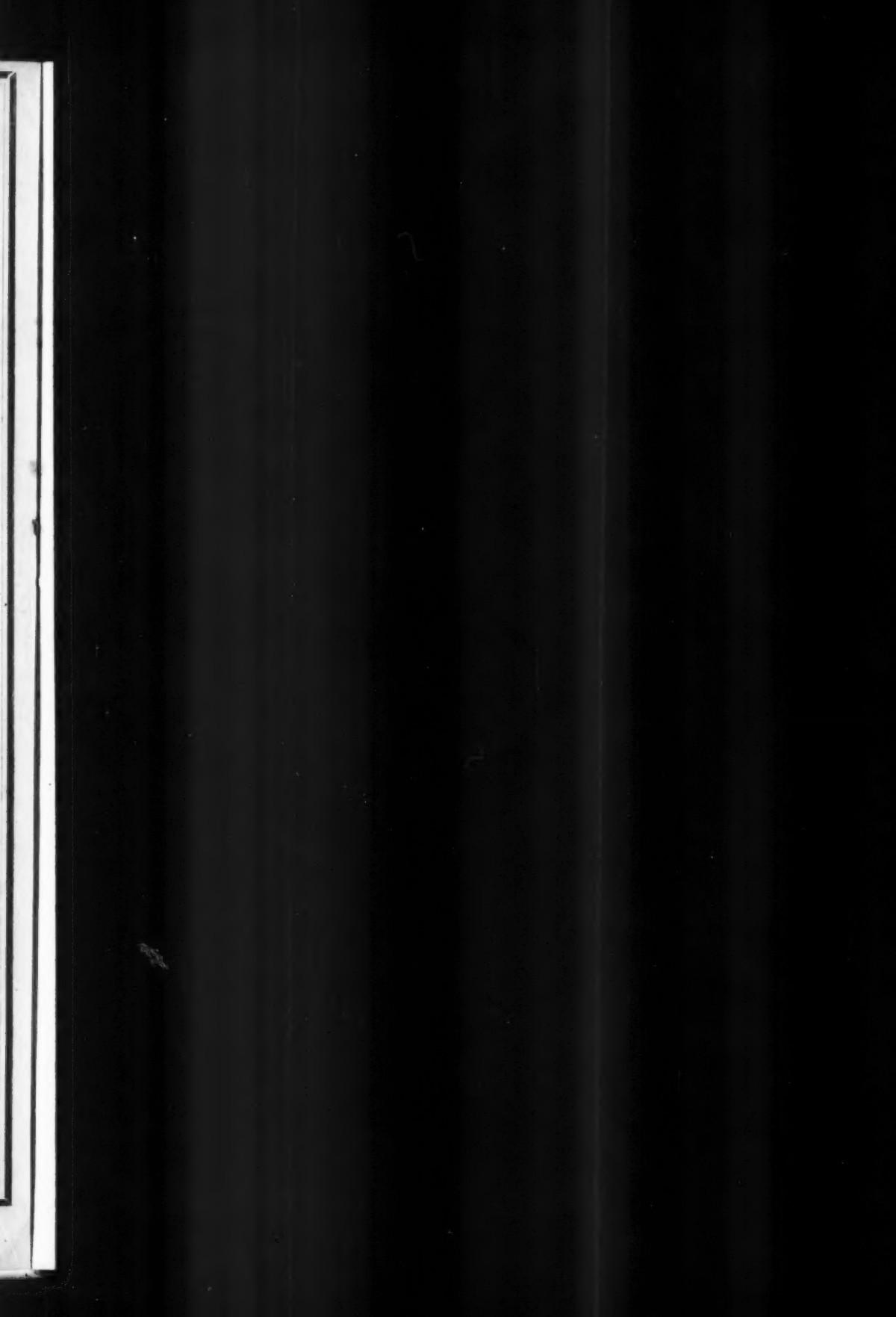
Premiums: To any person sending us the names of twenty subscribers, with \$20, we will give agricultural or other books, of his own selection, to the amount of \$5, at publishers' prices. For thirty names, with \$30, books to the amount of \$7.50 will be given. For forty subscribers at \$1 each, \$10 worth of books will be given. For fifty subscribers at \$1 each \$15 worth, and for one hundred subscribers, at the same rate, \$30 worth of books may be selected. OR, in the place of books, we will substitute, if desired, Farm or Garden Implements, collections of Vegetable and Flower Seeds, Nursery Stock, Subscriptions to Illustrated or other Journals, American Watches, &c., &c., of the same value as the book premiums offered.

Address,

SAM'L. SANDS & SON,

PUBLISHERS AMERICAN FARMER,

No. 9 North street, Baltimore, Md.





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SALUTATORY.

About forty years ago, the Senior publisher of this paper became connected with the "FARMER AND GARDENER," itself a continuation of the original "AMERICAN FARMER," founded by John S. Skinner, which venerable title was in two or three years reassumed.

That the FARMER in its earlier series was ably conducted, contemporary testimony bore, we think, ample proof. The earliest on this, if not indeed, on either continent, of purely agricultural journals, its columns were always enriched by contributions from the pens of the most enlightened agriculturists of its day, and for many years it was the main vehicle for the extension among the farming community of information of the important discoveries and improvements which lent their aid to agriculture. Since the period we name, a great change has taken place in the husbandry of this, as well as of older countries. Lands, which by constant tillage, had become entirely worn out, have been restored, by ameliorating processes, in a great degree, to their original fertility; whilst fresh virgin soils, rich in the products of decaying vegetation, accumulating for centuries, by an unvaried and unrepaired cropping similar to that which had before obtained with the other lands referred to, have been reduced to the condition in which the last generation found the exhausted alluvial soils of Maryland and Virginia. Agriculture, though still an experimental art, has much to thank Science for. The discoveries of the last third of a century in Chemistry, Geology, and Animal

and Vegetable Physiology, combining with the inventions of practical Mechanical genius, have almost revolutionized the agriculture of former days as well in the principles as in the processes of terre-culture. In resuming the FARMER, the editors hope, by availing of the aid, which Science and Art are thus tendering, to keep pace with the demands of the times. Progress towards improved methods and more certain principles in Agriculture, will be the end they have in view. Calling to their help the support of scientific and practical gentlemen skilled in the particular branches assigned to each, they hope to produce a journal which will be cordially received as a welcome guest into every rural household to which it may come. We desire to make the AMERICAN FARMER the repository of the experiences of practical but intelligent men; a record not only of the successes, but of the failures in agricultural experimentation; and with that design we invite from all our friends brief reports of new plans or processes in any of the varied operations of husbandry.

Besides attention to the great staple crops, our purpose is to have particular regard to Stock Breeding, Dairy Farming and the Grasses, the cultivation of the Sugar Beet, Fruit Growing, Floriculture and Market Gardening, as well as to Pisciculture and other branches less directly connected with agriculture proper. On these and all allied subjects we will endeavour to present to our readers the most advanced and soundest views.

Rural Architecture and Embellishment, including Landscape Gardening, will be treated

from time to time by contributors of talent and taste in their respective departments.

The FARMER's Home Circle will be provided with such attractions as to make the advent of each number a most welcome period. Every visit will bring something to entertain and instruct; whilst in the Department of Domestic Economy will be found such tested recipes of wholesome and palatable dishes, as are suited for every table, and such useful hints and formulas as every good housewife will find acceptable.

We shall, on every suitable occasion, emphatically give our voice and influence in favor of the thorough education, whenever practicable, of farmers' sons—themselves our future farmers—considering that agriculture, in truth, is one of the most liberal of the professions.

In this connection we shall not fail to advocate and encourage our Agricultural Colleges, as a means when well founded and well conducted, of advancing the cause of scientific agriculture.

We shall further aim by recommendations of neatness, taste and beauty in the adornments and surroundings of our farmers' homes to awaken and stimulate a love for the beautiful; and by suggestions of apt and fitting embellishments to old homesteads and new homes, to add to the former a charm unknown before and give to the latter attractions such as wind about the heart. Our every effort shall be given to make the farm more attractive to the young, and by our counsels to cause both fathers and sons to look forward to entering upon a wider, loftier, nobler, life of thought and action.

Our purpose and hopes then are to do our part in re-invigorating the agriculture of the Central and Southern States; to keep our farmers advised of the progress made in scientific investigation so far as it promises to affect their lives and labors; to post them as to the doings of successful farmers in our own and distant lands; to afford a medium for inter-communication between the tillers of the soil of different sections, and an opportunity for the publication of successful methods of practice as well as of the failures which loom up like beacon lights on the waters of experimental agriculture. Every branch of culture and stock raising will receive its due share of space and notice, and we invite the co-operation of our farming and planting friends in all sections

to aid us in the great work of advancing the interests of agriculture.

In another column it will be seen that the Senior Editor reviews his past career as a pledge that the AMERICAN FARMER will be used for no selfish or interested purposes, and announces his determination to make it, as in times past, when under his control, the steadfast and fearless friend of the Farmer.

If then by our humble labors we shall aid in bringing about in the sections of country to which our journal will go—by an extension of the use of appropriate natural and artificial manures, by the substitution of more economical and effective methods of procedure in practice—the melioration of impoverished lands and the reclamation to agriculture of the swamps and old fields now thrown out of cultivation; and above this—if we can persuade our farm'n; friends to the concentration of their labor and manure on less, instead of the thinly diffusing of them on more, land—our labor shall not have been in vain, and we will have attained the credit due to those who have been instrumental in making “two blades of grass grow where one grew before.”

Our Agricultural Calendar.

THE NEW YEAR.

The commencement of a new era of time is the proper period for every cultivator of the soil to lay out his plans for the whole year. System in all the pursuits of life is absolutely necessary for the most perfect success, and probably in no other branch of business is it more essential than in that of the Farmer; all his proposed arrangements should be well defined in advance of their execution, so that he may never be at a loss throughout the coming seasons as to what he is next to do. In former years the old AMERICAN FARMER, when under the control of our Senior, was the first to adopt the system, which has since been so generally followed by most of the agricultural journals of the country, to mark out for the guidance of the agriculturist, a brief outline of the duties and objects which should receive his attention during the ensuing month; and this was found to be very advantageous to those for whom it was intended, not only as a reminder to the old farmer, to prepare in time for the labors before him, but also to the young-

er classes to whom the hints which we usually presented, and which we took especial care to have prepared from the most reliable data and authorities, were of no little value as guiding them in the most approved and advanced ways of conducting their estates. We have often enjoyed hearty commendations and thanks from those whom we thus served, for the very essential service rendered them in the discharge of the duties devolving upon them. We shall continue this practice to some extent, and in the course of our observations and investigations present to our readers such information and advice as will aid in the enlightenment of the mind of the agricultural public in regard to the progress of its calling.

We shall endeavor to disseminate such facts as will help the farmer to accomplish his work with less manual labor than he has been accustomed to give it, and to lay before him at the same time statements of improved modes of culture whereby his crops may be increased. It may not be out of place to remark here that in many instances it pays a farmer better to think than to work. Doubtless where several hands are employed, the directing mind which controls all, which reasons for all, accomplishes more than if its owner performed part of the labor with his own muscles. It is very well that he should *know how* to perform the work, but the general supervising, the pointing out to each laborer of the easiest mode of attaining a particular end, the assignment of different men to tasks best adapted for each, the doing of this is more important than performing one man's share of the actual labor.

Thanks to the inventors of the Seed Drill, the Reaper and Mower, the Horse-Rake, the Hay Tedder and the other labor-savers, much of the drudgery of farm work has been lightened; but the end steadily to be had in view as the great need of the farmer is the perfection of still other implements for other descriptions of farm work by which hand labor may be economised. The hopeful outlook for the future hinges much on the accomplishment of this, and the securing of greater crops, not on larger, but on smaller areas.

With these preliminaries we will proceed to map out such of the matters as will now engage attention, and although but little can be done during the present month in the way of cultivation, yet many things can be attended to, which will aid in securing success, when the spring season dawns upon us, and active ope-

rations in the field are to commence. As in this initial number, many matters require our attention, which will not be a hindrance to our labors when fully underway, we will necessarily be brief in our remarks in some departments, but we promise that in the subsequent numbers, preparatory to the Spring work, every seasonable subject will receive proper attention in

The Work for the Month.

PLoughing.—The utility of Fall and Winter ploughing for the Spring crops, is generally admitted by most good farmers, especially when the land is of a tenacious texture. It is perhaps better for such, than upon lighter soils; but care must be taken that clayey soils shall not be ploughed when wet. During January and February, it frequently happens that the weather will permit this work to be done, and for several reasons it is important that the cultivator should avail himself of any such opportunities that may offer.—1st. It renders such soils more pliable by the meliorating influence of the frost; 2d. It destroys the grub worm which would otherwise be dormant until the spring, when a resuscitation to active life renders it destructive to the early planted corn—and, 3d, in addition to the improvement in the physical character of the soil, by exposure to the frost, it advances the work in the Spring, when the farmer has so many duties to perform, that this, which is necessary to be well done at all times, cannot receive that care and attention that is requisite.

FORMING AGRICULTURAL CLUBS.—A very interesting discussion recently took place at the meeting of an Agricultural Club in Baltimore county, Md, which we sometimes attend, as to the relative advantage of Fall or Winter Ploughing, over that of Spring, when the above reasons among others were generally given in favor of the former practice; and upon a vote being taken to test the sentiments of the members upon the question, ten were found to be in favor, and two opposed to Fall or Winter Ploughing, whilst two others had not decided in their own minds or by their experience which side of the disputed point they favored. And here we will remark that this Club, known as the "Gunpowder Agricultural Club," consists of fifteen members, and meets alternately at their residences once in every four weeks, and is composed of as intelligent a class of farmers as are to be found in any district of the S^v

or country. Each one in succession, at the meetings, is called upon and expected to give his views or experience upon the subject matter which, in advance, is appointed for discussion at the meeting—and although men who have in their day handled the plow, mostly upon the fields they now cultivate, and all of them the owners of the rich lands upon which they reside, yet it is remarkable with what clearness they are enabled to express their opinions upon the various mooted questions which from time to time are presented for consideration and for the instruction of each other. Another of the missions which it is our province to prosecute will be the encouragement of the formation of these clubs in every neighborhood where a dozen or more of intelligent farmers can be found within the compass of ten or twelve miles. Except the reading of a judiciously conducted agricultural journal we believe no other means can be devised by which so much solid information and practical experience can be attained as by the attendance, monthly, upon the meetings of these clubs.

One of the members at the meeting referred to above presented undoubted proofs, by actual measurement of land and crop, of the production the last season of 25 bbls. of corn to the acre, 40 ears of which filled a bushel measure; this was for a premium competition, but from our knowledge of the gentleman who owned the farm, we have no doubt that the balance of his fields did not fall very far behind this result. Another competitor, upon an acre produced between 17 and 18 barrels, and the whole field of 49 acres yielded 14 barrels to the acre. The field from which the yield recorded last was taken was a bare common when the present owner first took possession of the farm, and by his industry and judicious management it is now made to yield crops equal to those grown in any state of the Union. This Club is a model one, and we advise those who may be disposed to follow its example to send a delegate to witness its mode of operations, for their better guidance. From the well established reputation for hospitality of the farmers of Baltimore county, we have no doubt such will receive a hearty welcome.

MANURE MAKING—It is useless for the farmer to expect success, whose lands have been reduced by injudicious cropping without suitable return to the land of the sources of supply for the very essence of fertility which has

been extracted from it and sold off the farm in the crops which are placed upon the markets of commerce.

It must be thoroughly understood, and science daily demonstrates the fact apparently so little appreciated or availed of by many farmers, that the land, like the animal system, must be fed, to keep up its vigor and even its life. We will not here discuss this subject, as we shall find ample opportunities hereafter to impress its importance upon the attention of our readers. What we now wish to do, is, during the present season, when time may be better afforded than in the more genial months of the year, to urge the gathering into the barn yard of every particle of vegetable substance that ever had life, from which to make a compost to furnish in the spring the necessary plant food for the crops. Every wood and fence corner, the scrapings of ditches and the mud from creeks and rivers, around and about your premises, the dung of poultry, as well as the marl and peat deposits wherever they are at hand, can be made to furnish a large amount of manure which by a proper combination with that from the horse and cow stables, will be really more valuable than that which so many are expending heavy amounts in cash to purchase. Depend upon it, that whatever else you apply to the land, you cannot dispense with that which can alone be made on your own premises, for the mould is mainly formed therefrom, upon which all commercial manures can act beneficially, and thus combined, a permanent improvement is the more readily secured. The carcasses of animals which may happen to die, can be added to your heaps with great advantage—the flesh and other parts should be separated from the bones, and mixed with the vegetable materials. The flesh contains more nitrogen than the bones, and this is the most valuable of all the fertilizing materials applied to the crop. To every three loads of the materials gathered as advised above, mix one load of stable manure, and for every 20 loads add to the mass a bushel of plaster of Paris, to prevent the escape of the ammonia, which otherwise being of a volatile nature, would escape into the air, and, if your neighbor has been more provident than yourself, and put plaster upon his fields or his dungheaps, he may unintentionally rob you of the most valuable constituents of your own barn yard manure. Gather your materials and dispose of them as directed; and we will

hereafter give further hints upon their management.

BONES.—In the use of dead animals, we have above excepted the bones, for the purpose of more fully urging attention to their great value, as the most effectual means of securing to the soil the phosphates of which it has been deprived by continued cropping. We have devoted much thought and investigation to this subject, and proved to our own satisfaction at least, the correctness of our conclusions, by practical tests upon our own farm, and by the experience of others who have used them and have reported to us the results, on their fields; and we are thoroughly satisfied that by no more economical and effective means can the phosphates be replaced in the soil than by their use. Our attention was first more particularly directed to their value, a number of years ago, by an excellent farmer of Montgomery county, Md., Mr. Richard Bentley, in a communication which we published in the *American Farmer* at the time—not that the value of bones was not established before that period, for in England their great value in connection with the feeding of sheep, and the culture of root crops was well established, and the agriculture of England had been resuscitated mainly by their use. It so happened, however, that our attention had not before been so fully enlisted in the investigation of their merits as was afterwards the case. We subsequently put upon record our opinion, which in later years has been more thoroughly confirmed, that it is the duty of the farmer to secure to his land a greater amount of phosphates, and this he cannot more effectually do than in the saving and use of bones. They decay slowly, and consequently if applied whole to the soil the effect is at first not very apparent—but they should be finely pounded, and if not applied in sufficient quantities to the land by themselves,—and very few can secure a sufficiency for this purpose in their immediate vicinity,—they should be well mixed with the compost heap, or barn yard manure, and the heat from the other materials will assist in their rapid decomposition. The best way, however, is to have them ground in mills made for the express purpose. Some of these are now so constructed as to produce what is called flour of bone, and is almost as fine as our common corn meal or wheat flour. This, however, in our opinion, is going to the other extreme, for the common bone mills will pro-

duce an article fine enough to pass through a seed drill, and sufficiently pulverized to meet all the present wants of the plant to which it may be applied, whilst the larger particles will gradually dissolve each returning season, to continue the process of supplying the food to the growing crop. Economy, therefore, does not require so fine a powder, although there is no danger of injury from the largest application—some of the best farmers of Maryland using as much as a thousand pounds to an acre at a time—but it requires the employment of considerable capital for such large applications, and their results will be seen for fifteen or twenty years upon the land to which they were made. Prof. Norton says that the application of 8 to 10 bushels of bone dust per acre should be made, mixed with half the quantity of farm yard manure usually given, and this will be more effective than 80 or 100 bushels of whole bones, although the effect of the crushed will be the sooner over.—Another method of applying bones, is in a state of solution by oil of vitrol. To every 100 lbs. of bones, about 50 or 60 of acid are taken—but in bone dust 25 to 45 lbs. of the acid is sufficient—the acid must be mixed with two or three times its bulk of water, because if applied strong, it would only burn and blacken the bones without dissolving them.

DRAINING.—Surface drains in the grain fields should be examined with care, in order to prevent any obstruction to the free passage of the water, so that it shall not accumulate around and about the plants, which should be kept as dry as possible. If the land is ploughed deep, and the water furrows judiciously laid out and kept open through the winter season, little apprehension need be entertained of winter killing. During the winter, if you have a soil or subsoil liable to saturation with water, this is a good season for operations to be advantageously carried on to correct the evil, by a proper system of Draining the same. The profit to be derived therefrom, if properly done, is almost incredible, while the general health is also improved, for it is to this neglect that the malarious diseases which are prevalent in certain localities are to be attributed. The crops will be increased one-half by draining such lands. This is a very important branch of agriculture to be studied and practiced, and we shall give it, among others, a due share of attention. And here let us remark, that much labor and expense will be

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lost if the landholder does not understand the correct principles of draining, and we wish to impress upon his mind that he should endeavor to obtain the best advice within his reach upon the subject. He who drains his wet lands confers a benefit not only upon his own family and estate, but also upon his neighbors.

DAIRY COWS AND BREEDING STOCK.—Cows in milk should be carefully attended to in this and the next month. Unless it is by those who have very superior or fancy animals, we need hardly expect that these useful creatures will receive the benefits of a cleaning and currying every day; but this operation would undoubtedly pay for the labor and trouble thus extended, both in the superior health and the greater flow of milk which would be produced. Feed them, however, at stated times, three times a day, with a mixture of cut hay or straw and bran, with some other food of a succulent nature, and nothing can be better than pumpkins or squashes. In a late visit to the Dairy establishment of Mr. Dickinson Gorsuch, who supplies the city markets daily with milk, by the Northern Central Railroad, we were pleased with the system and excellent management of his herd of milch cattle. He is directly on the turnpike road, and has to send his milk cans every morning some two or three miles to the railroad station, which is upwards of 20 miles from the city; and, by the evening train, they are returned to him, ready to be filled again in the morning. Mr. G. thinks that this is the most profitable mode of dairying to those whose farms are within a reasonable distance of the railroad; but it is attendant with great labor and trouble, and the owners of such establishments are subjected to many annoyances and severe trials. Those engaged in it have to prepare themselves for such contingencies, and are bringing up their farms to a high state of fertility. Mr. Gorsuch and others engaged in the same pursuit, obtain from Chicago car loads of shorts, bran and ship stuff, and find their profit in paying \$20 to \$25 per ton for it, delivered at the nearest station to them on the railroad. This is fed to the cows regularly, the exact quantity measured out to each at feeding, and given to her in her own stall, each being assigned one and knowing her own as well as a child does his seat at his father's table. Mr. G. is now feeding his corn husks to his cows, which they

eat with great avidity; the husks being placed in the racks, and as many fed out as they will devour, the consumption being very large; they are fed in connexion with the meal and bran.

The cows should receive say two ounces of salt thrice a week, to each, or what is perhaps, better, the same quantity of salt, ashes and oyster-shell lime. Water should be given thrice a day. Good bedding should be provided, and in addition to their other food, let each cow receive 20 to 25 lbs. of good clover hay per day.

COWS AND HEIFERS IN CALF. should be cared for, and good attention given to their comfort, both in their food and bedding—the general directions laid down for milk cows, are equally applicable to these, although they will not require so large an amount of food; still a liberal quantity of good hay and fodder should be furnished them. They must have a supply to maintain their own strength, and at the same time furnish a sufficient quantity for the forming of flesh, sinews and bones in the young which they are carrying.

BROOD MARES should be fed moderately, but regularly three times a day; 20 lbs. hay per day will suffice for them, and twice a day give them a feed of oats, or other grain. They should be kept in good order, but not to be too fat, as this latter state will interfere with the delivery of the foal; like other animals in a similar condition, the food given to them should be of good quantity and quality, in order the better to build up the frame of the young, and to give the dam strength for the demands upon her in parturition.

YOUNG COLTS AND CATTLE should likewise be well cared for at this inclement season. It is necessary to secure to them a well developed organization, that they be supplied with ample food, and of the right kind, to keep them in good plight, and in high spirits. Avoid both extremes, so that while they are not to be permitted to show every rib in their bodies, neither should they be made to partake too much of the obesity which is better calculated for animals preparing for the shambles. Moderation is proper in this matter, as it is in most of the things of life.

POULTRY DUNG.—We have already alluded to the disposition of poultry dung in connexion with the barn-yard manure—its valuable constituents almost equaling, if properly preserved, the best Peruvian Guano—the

amount of nitrogen in it being about 16 per cent.; and if the farmer is careful to secure the supply in good order, he will save from each hen in a year sufficient valuable salts and nitrogen to furnish food for several bushels of wheat.

We now conclude our calendar of suggestions of seasonable work by wishing all our readers a *happy New Year*, hoping that throughout the year they may be blessed with health and prosperity, and that under the smiles of a benign Providence, they may realise abundant crops, a fair remuneration for their labors, and above all things, have thankful and contented hearts towards the Author of every good and perfect gift.

IMPROVED BREEDS OF CATTLE.

At no previous period of our history has more interest been manifested in the raising of the improved breeds of cattle than at the present time. Enterprising men have taken advantage of this excitement to import, more largely than heretofore, animals of those breeds which are most highly esteemed in this country, and public sales are frequently held in our principal cities whereby these imported animals are widely distributed among farmers who are anxious to get the best breeds suited to their particular circumstances. Not only of cattle do these importations consist, but also of the best breeds of sheep, swine and poultry—the laws of the country very properly providing for the introduction, free of duty, of all live stock imported for breeding purposes, whether for the use of the importer or for sale.

The new era which has dawned upon the country within the last ten or fifteen years in the establishment of Associated Cheese and Butter Dairies in large sections of the United States, has necessitated greater attention than was formerly given to the raising of cattle and the providing of them with the grasses best suited for the purposes to which they are to be applied. This is evident from the fact that there are now probably some 1500 to 2000 of these dairies in operation, and that they are continually on the increase; the average number of cows to each dairy being fully three hundred.

This important branch of husbandry it will be our aim to encourage and support through the columns of the rejuvenated "AMERICAN

FARMER." We have been, for some years past, studying the problem, and we think the time has now come when, in the Middle and Southern Atlantic States, this business, which is enriching the States at the North and West of us, can be safely and profitably introduced; and we promise our readers that the subject shall be one of our specialties for constant attention.

One of the most eminent and successful farmers and planters of the South, who, in former years, in his zeal for the dissemination of correct information on agricultural topics, did much for the increase of the circulation of our journals among the people of his native State, paid us the compliment of saying that we had "saved the wheat growers of the United States millions of dollars" by our watchfulness over their interests during the fifteen years that preceded the time of the remark; and now that we have again laid ourselves out for "work" in the interests of the same great class of our fellow-countrymen, we feel a consciousness that we can make the farmers of the regions through which we expect our **FARMER** mainly to circulate, our debtors for still other millions, which we hope they will have added to their wealth, through its instrumentality.

Our object at this time, however, is to present some considerations to our readers, who may wish to improve their herds by the introduction of fresh blood, which should be from breeds approved and most suited for the objects directly in view, whether for the shambles, for the making of butter, for the production of milk, or for draft. And first, as to the

SHORT HORNS (OR DURHAMS).

This breed, it is universally conceded, is the best for districts of country where beef-raising for the supply of our markets is the object; and the probability that the price of beef will not be, for some time to come, materially reduced except by the operation of temporary causes, is inducing breeders to prepare for the supply which will be demanded, not only in consequence of the great number of cows required for the supply of the associated dairies, which necessarily withdraw from the reach of the butchers and packers many animals that would have been turned over to their tender mercies, but also as a result of the immense immigration from Europe which may be expected to our shores in the

future, a very large proportion of the new comers at once turning their attention to agriculture. These and other causes will create a demand greater than under ordinary circumstances could readily be supplied. Hence the enormous prices which are being paid for animals of the breed under notice. They are peculiarly fitted for the production of beef above those of any other breed yet attained. Such, too, has been the skillful breeding of this lordly race, that the least possible amount of offal in the carcass is now to be found, and almost every part is made to yield its full quota of merchantable meat. The immense prices which are not infrequently obtained for animals of this breed might be set down to the credit of "fancy" if the buyers were not known to be shrewd business men, who calculate the probabilities of the future in making such investment of their funds.

Until recently the most valuable Short Horns were imported from England, but our enterprising breeders are now disputing the palm of excellence with their competitors over the great deep, and are sending back to the very soil on which the race originated, specimens of American-bred animals for crossing with the most celebrated in Britain. Higher prices have been received, we believe, for animals from herds on this, than were ever realized from those on the other, side of the Atlantic.

It is to be hoped that the herds already established, or which are in process of formation, in Maryland and the States South of us, will soon, under the management of the men who have embarked in the business, favorably compete with the best in the land. There are many sections of country from Maryland to Georgia which are well adapted by soil and climate for grazing purposes, and with proper attention to the breeding of stock suitable for the situations chosen, we believe that enterprising men will find liberal returns in judicious investments in the undertaking.

Marylanders remember with pride the days when on our show grounds were exhibited the splendid Short Horn herds of the public spirited breeders, Messrs. Calvert, Hill, Capron and others; and we believe the satisfaction felt with their display will be equalled in time to come with that made by the breeders who are now giving attention to these superior animals. We hope, too, that our sister

States to the South of us will not be behind us in the formation of equally valuable herds.

ALDERNEYS, JERSEYS AND GUERNSEYS.

These cattle, from the Channel Islands, on the coast of England, have been generally classed under one head, and termed indiscriminately either "Jerseys" or "Alderneys." In England, however, for the past year or two, in classing them for competition for prizes, there has been a distinction made between Jerseys (including Alderneys) and Guernseys. There is probably more general interest felt in this race of animals than in any other of the improved breeds, since they are more in demand by a greater number of persons. It is accorded to them that for small dairy farmers, near cities, who supply butter for the tables of the more wealthy classes, they are the most suitable animals to be had. Every owner, too, of a suburban residence, must have his Alderney—for the superiority of the butter made from her milk, in color, texture and flavor, renders her a great favorite. Although the milk produced is not as great as from the Ayrshires, and perhaps from other breeds and crosses, yet this deficiency is made up in richness and good color, and butter from Jersey dairies, when well made, as is necessary under all circumstances, to secure good prices, will bring at all times in our city markets, or rather from special customers who are served at their own houses, from 25 to 100 per cent. more than that made from native cows. One or two of these animals in a large herd of native or grade cows will be sufficient to give a rich, deep tint to the mixed milk of all.

Referring to the distinction, alluded to above, between the Jerseys and Guernseys, we draw upon a letter appearing some weeks ago in the "Country Gentleman" from a correspondent who attended the Channel Islands Fair, held in Jersey last Summer, which contains a comparison between the two races. Some 300 animals were exhibited, mostly from the Island of Jersey, which is the largest of the group, and consequently capable of producing more cattle and sustaining more people engaged in raising them.

The visitor alluded to thinks the farmers of Guernsey have been so well satisfied with the quality of their animals, that they have hardly paid the attention they might in all cases to improving the form—whilst in Jer-

sey, on the contrary, so much attention has been given to beauty, high-bred appearance, solid color, &c., that they seem to be in danger of sacrificing to a certain extent the richness and high color of the milk. As an instance, he says, that the Jersey breeders are influenced partly by fashion rather than quality, they consider anything but a black nose inadmissible; while the Guernsey breeders have cows with pink noses as well as black, and think it a matter of no consequence, looking more to the capacity for milk, and the yellowness of the true skin. "In the qualities of richness of milk and its deep yellow color, the Guernseys as a race seem to me superior. At the fair I saw no Jersey butter equal in color to specimens from Guernsey exhibited there; in fact some of the Jersey butter was artificially colored, and all through the Island of Guernsey, at the farms, in the market, and at the hotel, the butter was of the first quality in color and flavor. At the All-England Agricultural Show at Wolverhampton in July, the first prize in butter was called Guernsey, but whether this would be of real significance is doubtful, as it is only this year for the first time that the English have judged Jerseys and Guernseys in separate classes—hitherto they have been in the habit of calling them indiscriminately Alderney or Channel Island cattle."

The following additional views upon this subject are presented from the same intelligent writer, which, coming from a close observer upon the spot of the nativity of this breed of cattle, will be of value in future references to them by many who are interested in the stock. He says:

"The Jersey cattle are a smaller race than the Guernsey, the latter having generally large frames and coarser bone. This is more marked in the bulls even than in the cows. The Guernseys are said to fatten quickly when their usefulness is over in the dairy and to make excellent beef. I can see no reason why crosses should not be made between the two breeds from selected animals, to the improvement of both, and some of the Jersey people seemed to hold the same idea, for the owner of one of the Guernsey bulls at the fair was asked several times to allow the services of his animal while there, but he declined. Being noted for the same quality, richness of milk for butter making, and being originally of similar derivation, one would think the cross would be desirable, and in that way greater general perfection arrived at. Many of our most noted Channel Island cows here now, and their ancestry, are thought by some

judges to show a dash of Guernsey, and some fine animals called Jerseys have probably been purchased and imported from England, where they have been in the habit of crossing the two, procuring them from either island and calling them all Alderney. The Jerseys would give the beautiful heads, level backs, &c., and the Guernsey would improve the size, the skin color and the fattening qualities. I saw some Guernsey cows that seemed to have all the desirable points of quality, size and beauty; some Jerseys also that left nothing to be desired, except perhaps size, but I speak of the average types.

"To sum up a comparison of these two breeds of Channel cattle, it might be put in this way, in the order of excellence:

	1st.	2d.	3d.
Jerseys.....	Beauty.	Butter.	Beef.
Guernseys.....	Butter.	Beef.	Beauty.

"Crossing the two would give an animal that would do credit to any gentleman's lawn, be of first quality in the butter dairy, and not in the end be sold for a mere song to the butcher."

AYRSHIRES.

We have taken up so much space already with the description of the popular Alderneys, that we can afford but a small amount at present to this breed of milch cows, so valuable to those who are not blessed with the best of pastures. On good pasture, and with the same care which is bestowed on the others, the Ayrshires will produce a greater proportionate amount of milk than either the Alderneys or Short Horns; but its quality is not so good, and hence they and their crosses are most esteemed for the uses of those who are engaged in the supply of milk to the cities. They are more easily kept on short commons than any other breed, and consequently may be considered the more valuable as the poor man's cow, in contradistinction to the Alderneys or Jerseys, which are more numerous on the beautiful lawns and in the meadows of the wealthy. They will, in a word, thrive, keep in flesh, and continue to furnish their quota of the pail, on poorer pasture than any of their competitors for popular favor. Mr. Flint in his well-known work on "Milch Cows and Dairy Farming," thus bears testimony to the merits of this breed:

"For purely dairy purposes the Ayrshire cow deserves the first place. In consequence of her small, symmetrical, and compact body, combined with a well formed chest and a capacious stomach, there is little waste, comparatively speaking, through the respiratory system; while at the same time, there is a very complete assimilation of the food, and

thus she converts a large proportion of her food into milk. So remarkable is this fact, that all dairy farmers who have any experience on the points, agree in stating that an *Ayrshire cow generally gives a larger return of milk for the food consumed than a cow of any other breed*. The absolute quantity may not be so great, but it is obtained at a less cost; and this is the point upon which the question of profit hangs."

The Ayrshires, in fact, like the men and women, and almost everything else, from the home of Scott and Burns, do credit to the land which produced them, and we will rejoice to see them multiply all over our country, so well calculated are they to do good service in contributing to the future prosperity, which, with an eye of faith, we look for as coming through the means of the Dairy System, which we hope to eventually see established in the older Middle and Southern States.

DEVONS.

For beauty of form, and excellence of flesh suitable for the tooth of the epicure, and for the production of the best race of animals for draft, no breed surpasses this. They are fair milkers; but the quality of the milk, while not equal to that of the Alderneys, is yet superior to the Ayrshires, and not inferior to the Short Horns; and, next to the latter, they are the best for the shambles, the flavor of the beef being very superior. The late George Patterson, Esq., of this State, who, in our belief, was one of the best judges of live stock in the country, esteemed the Devons as more valuable for all purposes than any other breed of cattle.

HOLSTEINS AND HEREFORDS.

Of the former there are comparatively few in this country, and it is a disputed point indeed, just at this time being discussed in the Northern agricultural journals, whether there really exists such a distinct race of animals as distinguished from the Dutch breed. For ourselves, we are very well satisfied that there does, having for a great many years known in this State the large black Holsteins, with white spots on the body, very distinct from the Dutch cattle always seen here of smaller size and of reddish color. Both of these races, if they are distinct, as we incline to consider them, are wonderful milkers; but the Holsteins, particularly, we should be glad to see more largely introduced into American herds, deeming it probable that, with proper treat-

ment, they would soon win a permanent place in the esteem of our dairy farmers.

The Herefords in Great Britain have frequently come into competition with the Short Horns, but have never made any decided headway, we believe, against them. In this country they have failed to attract the regards of the public to any considerable extent, having been more prevalent in the Northern States forty years ago than now. In Maryland there have been one or two herds of this breed, but none further South, so far as we know. They are of large size, make excellent working oxen, and produce fine beef, but are poor dairy cows both as concerns the quantity and quality of their milk.

These are the main breeds of improved cattle in this country, and as reference must constantly be made, in a work like ours, to the distinctive features of the various races, we have given to their consideration more space than we intend generally to devote to any one subject in a single number.

In concluding, we invite breeders of cattle and other stock, in view of the great interest existing in regard to improved breeds, to keep us advised of sales from their herds and flocks and pens, giving particulars of animals, names and residences of purchasers, and, when publicity is desirable, the prices obtained, so that our readers who are interested, may be informed of such movements.

We also solicit for our columns contributions embodying the experience of those engaged in any of the branches of stock raising.

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AGRICULTURE IN THE SOUTH— “WHAT SHALL WE DO?”

To the Editors of the American Farmer:

I cheerfully comply with your request to furnish an introductory article for the first number of the new issue of this time-honored journal. It was the pioneer of agricultural improvement in the United States, and has been so intimately associated for more than half a century with the names of those great men, refined in sentiment, elevated in intellect and successful in the practice of our noble art, who have contributed to its columns, that it must be a subject of congratulation to all farmers of cultivated minds that it is about to be revived.

You have undertaken a most important but I fear a difficult and hazardous enterprise.

The circulation of the *American Farmer*, though confined to no locality, was chiefly in the States of Delaware, Maryland, Virginia and North Carolina, among a class of educated gentlemen, who cultivated agriculture not for sordid gain, but as a noble profession, to acquire independence and the means of supporting, in comfort and abundance, happy and virtuous families. Their homes were the abodes of elegance, hospitality and refinement, and their farms, though not in all cases cultivated like a garden, were in many instances managed as skillfully and successfully as farms of equal extent in any part of the world. This was the natural home of an enlightened agricultural journal, and the bound volumes still found in the best libraries of these States contain an imperishable record of the virtue, intelligence and practical skill of the noble men who originated and sustained it.

I do not allude to the past to produce discontent with the present or despondency as to the future. But as the skillful mariner who has passed through a storm deems it necessary to survey his ship, to ascertain what damage she has sustained in hull and rigging, before he proceeds upon his voyage, it would seem but prudent for you to examine well your surroundings, that, seeing, you may be able to overcome the difficulties in the way of your enterprise.

The prospects of agriculture throughout the Atlantic States are very discouraging. The inquiry everywhere is: "Does it pay?" and the answer most generally is in the negative. I have before me the admirable Reports of the Board of Agriculture of Massachusetts, and they are full of complaints of the decline of agriculture in all New England. The young men go to the cities, or to the Great West, in pursuit of excitement or of more profitable employment; the old cannot perform the labor, and cannot afford to hire; their fields and pastures are running to waste, their live stock rapidly diminishing in number, their farm buildings going to decay, and the rural districts exhibit every indication of abandonment and dilapidation. It is in vain that learned and practical men, eminent for virtue and patriotism, reason and remonstrate. The tide cannot be arrested. When cabbages can be brought by rail from Michigan and sold cheaper than those produced among the hills of Berkshire or in the market gardens around Boston, the young and enterprising think it

high time to be seeking the cheap and fertile soils of the West, instead of wasting their energies among the barren rocks of New England. The prospects in parts of Maryland, Virginia and North Carolina are no better. We lost our teams, floating capital and labor during the war, and although the raw material of labor is abundant and cheap enough, not one farmer in fifty can command sufficient capital to employ it in the regular cultivation of his land. Hence most of the farms are rented to freedmen, or cultivated on the wretched *Metayer* system, common on the Continent of Europe. The lands yield little revenue to the proprietors, and are rapidly depreciating. The efforts of our best minds have been exercised to find, if possible, a remedy for these evils. With the earnestness of the awakened multitude on the day of Pentecost, we have cried without ceasing: "Men and brethren, what shall we do?" Unfortunately we have yet found no Peter who can give us an authoritative answer. Sanguine statesmen have found an answer in one word: "Immigration," and the people have re-echoed "Immigration." We have spread before the world the unsurpassed advantages of our State, its genial climate and kind and fertile soil, our beautiful bays and rivers, magnificent waterfalls, inexhaustible mineral deposits, and our kind and hospitable people, with arms outstretched to receive men of all nationalities who may desire to cast their lot among us. We are prepared to give a warm reception to all, especially to the worthy descendants of our sturdy British ancestors, yet they come not. Our hopes and expectations from this quarter are, I fear, extravagant and unfounded. There is little or no surplus population in the North, and much less in Europe than is generally supposed. This immense Continent is almost a wilderness, not one-fourth of the territory of the United States being inhabited. The Secretary of the Treasury, in an address lately delivered in Philadelphia, made a startling statement, though strictly true. He said if all the people of the United States were concentrated in the single State of Texas, her population would not be as dense as is now that of Massachusetts, where they "have still room for more." With such an immense unoccupied territory inviting settlers and actively contending for population, it is hardly reasonable to suppose that we of Maryland and Virginia

shall be able to command a very large immigration. Some of our friends are yet hopeful, and attribute our failure to the want of a regular paid State organization. We have no money to spare for any doubtful experiment, and the success of the Maryland paid Board of Immigration is not believed to have been such as to justify us in following her example.

CAPITAL is quite as necessary as labor, for without it neither land nor labor can be made productive. How is this to be procured? Capital, we are told by political economists, is the result of the savings of former years, and can only be acquired by industry and economy. We were told it was superabundant in the North, and free trade in money would bring it to us cheap. How delusive the promise! Many of our most industrious and responsible farmers have been constrained habitually to borrow at 1 to $2\frac{1}{2}$ per cent. a month to pay their laborers, or stop operations—a rate of interest ruinous to any legitimate business, and especially to agriculture, the profits of which are never speculative or large.

This ever-recurring question, "What shall we do?" has yet received no satisfactory answer. Many of our zealous farmers have suggested various expedients to mitigate, if not to cure, our ills. Some of them will tell you "Corn does not pay," "Wheat does not pay," and each will suggest some substitute that may be more profitable. "Raise sheep" says one, "Plant ground peas" says a second, or "Potatoes" says a third. "Set out an orchard," "Plant strawberries and the smaller fruits for the markets," "Go to trucking generally." "Cultivate small farms and make them rich." All this may be very good advice in its way, but it is obvious it falls far short of the needs of a great agricultural community, with boundless extent of territory and without capital or labor to cultivate it.

Where so many wiser heads have failed I have great diffidence in offering my crude suggestions, but in times of great difficulty no man should withhold his counsel. I would say, then, be not rash in abandoning the old paths. Consult the dictates of good sense and experience, and, above all, do not lose faith in a superintending Providence. If you have had unpropitious seasons, remember that they have been confined to no age or country. Let us plant those crops that are best suited

to our soil and locality. If your location should render specialties profitable, devote your attention to them, but all the farmers in a great State cannot be truckers. The true course for those who cultivate their own farms is to pursue the British system of *convertible husbandry*. Raise grain, grass, stock of all kinds, sheep, cattle, horses, suitable to the soil and pastures, not forgetting hogs and poultry. In a word, raise everything necessary for home consumption, and have a surplus of all for sale. Depend for improvement of your land mainly on lime, clover and home-made manure. Let us be content; "pay as we go," and avoid the great sin of making haste to be rich, and, though poor, we may be happy. These are my views—the ominous question still recurs: "What shall we do?" To you and to your intelligent correspondents I turn over the subject. It will afford ample material for reflection. It is of earnest and pressing importance, and he who shall solve it will be a great public benefactor, and earn the lasting gratitude of the unfortunate people of the desolated States.

WILLOUGHBY NEWTON.

Linden, Westmoreland Co., Va., Dec. 8, 1871.

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Phosphates and Superphosphates.

By Professor P. B. WILSON, of Baltimore.

The discovery of the vast deposit of fossil bone in South Carolina has not resulted, as it was reasonably supposed it should, in giving the agriculturist a cheap and reliable source of material for the base of artificial fertilizers, viz: phosphoric acid. Not but that these fossils are truly rich in "bone phosphate of lime," from which manures derive their value, when properly prepared and rendered soluble, but from the careless manner in which they are thrown upon the market, in not having the foreign matter removed from them, thereby deteriorating their value for the manufacture of concentrated fertilizers.

These fossils, when properly washed and cleansed from sand and mud, should yield from 60 to 65 per cent. of bone phosphate of lime, but as found in commerce, either in the ground state or in bulk, they rarely yield more than 55, and frequently under 50 per cent.

Another and far greater difficulty is their want of solubility; virtually and chemically speaking, they contain their phosphoric acid combined with lime, precisely in the same

state as in the fresh bone of the ox, horse or sheep, while the *physical* properties of the combination is far different, and this difference determines their value for manurial purposes.

The difference in the physical properties of bodies—having the same chemical composition—in relation to the same solvents, presents itself almost daily to the chemist, so that in regard to the solubility or insolubility of phosphates of lime dependent upon the source from which they are derived, is not an anomaly. Fresh bone, either containing or deprived of animal matter, when finely ground, will, after the first year's application to the soil, be gradually dissolved by the rains, and the gaseous matter absorbed by the soil, and supply slowly the needed food for vegetation, while the same changes in the fossil bone, if ever occurring, would be long and tedious, not repaying the farmer for the labor and money he has expended in tilling his lands. Even this state of superior solubility in recent bone in comparison to the fossil or mineral phosphates, has been proven by experience to be inadequate to the demand of growing plants, and the solubility of bone needed to be increased.

To produce this change, the natural combination of three parts of lime to one of phosphoric acid is decomposed with sulphuric acid, which has greater affinity for the lime than the phosphoric acid has; therefore, sulphuric acid is added in sufficient quantity to combine with two parts of lime, thus giving a mixture of gypsum, or ordinary land plaster, and an exceedingly soluble phosphate, being a combination of one part of phosphoric acid, one of lime, and two of water. This phosphate, when used as a fertilizer, by coming in contact with the constituents of the soil, may become more or less insoluble, yet the cohesive forces or physical properties of the combination are so slight, in comparison with that originally of the bone phosphate, that the rains and atmospheric influences readily yield it to vegetation, as it is needed.

Fossil and mineral phosphates are as applicable, and as valuable, as a source for the production of the soluble phosphates, as the natural bone, with the advantage to the agriculturist of not having more than one-fourth of their market value, from the unlimited supply in the vast extent of deposit found in various parts of the world. This cheapness of raw material has been taken advantage of to a

greater or less extent, by large manufacturers, for substituting the mineral for the animal phosphates, without properly rendering them soluble, not unfrequently claiming for their "superphosphates" a large admixture of raw bone when really they contain none, although the careless and superficial results of the inexpert chemist may show large quantities of bone phosphate of lime, without stating whether of animal or mineral origin.

It can be readily seen from these facts that any one choosing a good article for immediate or future beneficial results should not place too much value upon the insoluble bone phosphates the fertilizers may contain, when the origin is doubtful.

There can be no questioning the great value of these concentrated fertilizers, from the favor with which they have been received in European countries, where their system of agriculture is more accurate and economical than with us. With their dense population every inch of ground must be made to produce for the army of consumers in their workshops and cities, who return but little directly to the reproduction of the products of the soil.

Again it must be taken into consideration the facility, and with what comparatively little expense, these concentrated fertilizers are applied. A few hundred pounds will suffice where thousands of pounds of stable manure would be required, and yet when the crop is gathered a profitable yield has rewarded the agriculturist therefor. Taking into consideration the value of these phosphatic fertilizers, the following suggestions in regard to their preparation are given:

The fossil, or South Carolina phosphate, as it is usually called, should be finely ground—that which passes through a 28 or 30 mesh sieve is preferable. To 100 pounds of this, thoroughly moistened with 33 pounds of water and thrown upon a board or clay floor, add 50 pounds of commercial sulphuric acid (of 66 degrees in strength) slowly, after each addition turning the mass until the whole has been added; then thoroughly incorporate the mixture until every particle of the solid matter has come in contact with the acid, to insure its conversion into soluble phosphate. During the addition of the acid a violent chemical action takes place; the vapor of water mixed with gases resulting from the destruction of some animal matter that these

phosphates still retain passes off. Two cautions are given above: first, in regard to the fineness of the phosphate; second, that it should be thoroughly moistened with a given quantity of water. These are absolutely necessary for successful manipulation. If in too coarse a powder, and the acid is used too strong, the moment they come in contact, and in the act of the liberation of the phosphoric acid, an impervious coating of sulphate of lime or gypsum is formed, effectually resisting any further action of the sulphuric acid in rendering that portion of the undecomposed material soluble immediately under this coating. The gypsum having a great affinity for water, it is absolutely necessary to have the sulphuric acid so far diluted that there will be a slight excess of moisture to keep the gypsum in a plastic condition until complete decomposition has taken place. As thus prepared, this superphosphate will contain in the moist condition 12 per cent. of soluble phosphoric acid, but if occasionally stirred, or opened out to dry, it will be increased to 14 per cent and be in a pulverulent condition, to be mixed with one-half or two-thirds of muck, humus matter, ashes, raw bone, or other available material.

Bone is converted into superphosphate by the same manner of manipulation, but the quantity of sulphuric acid is reduced to 45 pounds, and the water to 27 pounds—as bone, on an average, does not contain over 54 per cent. of bone phosphate of lime.

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The Maryland Agricultural Society.

It has seemed to me that it would be a good plan to have the causes (as they appear to me) of the comparative failure of our State Agricultural Fair discussed in the agricultural papers of the State.

We do not seem to get the people together. Why is this? We are, or ought to be, successful in agricultural pursuits. Why is it, then, that we do not gather a greater number of people at our annual State Fairs? Do not the people of Maryland think that Agricultural Fairs are a benefit to the farmers? Does Baltimore give that encouragement to the Fair that it ought? Do the railroads of the State give sufficient encouragement to the State Fair? Are the premiums divided in a proper manner to warrant success? Is there

not a want of co-operation between County Societies and the State Society?

Now I believe that the people of Maryland do think that Agricultural Fairs are instrumental in advancing the great *interests* of the State, although there may be a difference of opinion in regard to the way in which they should be conducted; but a great many of the farmers are not willing to give a day, or two days, to visiting the Fair, and also do not think that they will be repaid for the waste of time and money expended in getting to the Fair. A great many farmers also think that "What they know about farming" is all that they *need* to know—a very bad idea.

Secondly, I do not think Baltimore gives as much encouragement to the State Fair as she ought. In other States one day is generally observed in the city, near which the Fair is held, as a *general holiday*, and the citizens join with the farmers in making the Fair a success. And why not? Is not the success of the city, as far as it depends on Maryland, in a great measure dependent on the success of the agricultural community? At Richmond, Virginia, this year, and I believe in former years, the city made the third day of the State Fair a *general holiday*, and the attendance at the grounds that day was nearly thirty thousand people—enough to make the Fair a pecuniary success—whereas, at the Maryland State Fair, there were not more than fifteen thousand people on the ground any one day.

In regard to the railroads and the State Society: I do not think that the railroads do as much for the Society as they ought, and certainly not as much as the railroads of Virginia do for their State Society. In the first place, the Virginia railroads furnish the members of the Executive Committee of the State Society with tickets, so that they may attend the meetings of that Committee without expense. In the next place, they take all articles for exhibition to the Fair at usual rates, and if they are returned to the place from whence they came, no return freight is charged, and the money first paid is *refunded*; then they take *life* members of the Society to the Fair and return free of charge, and visitors are taken to the Fair and return for one fare.

The railroads of this State put articles for exhibition, life members, visitors, &c., on one footing—that is, to the Fair and return for one fare. This is not so liberal as the Virginia railroads, and there is no reason why

those of Maryland should not be as liberal to their State Agricultural Society as the Virginia roads are to theirs.

As regards the premiums, it does not seem to me that they are divided in a proper manner. In the first place, the Maryland Society should give up horse-racing, or "*trials of speed*," these do not *properly* belong to an Agricultural Fair, and it is a great question if they do not tend to break down all Agricultural Societies.

Look at the premium list for 1871! "*Trials of speed*" take within a fraction of one-third of the whole premium money.

They probably take a great deal more money away from than they draw into the treasury; and does it benefit farmers any to have these trials? I certainly think it does not. It draws the attention of those who come to the Fair from everything else. It monopolizes just half of the time devoted to the Fair. Its tendencies are demoralizing, and not elevating. It does not teach the farmer anything. He ought to go to the Fair to learn how to make his farm pay better. The money given in this way would be better disposed of by giving it to agricultural productions that are *sadly* neglected in our premium list. For instance: For butter and cheese we give eighteen dollars for all premiums in that line—it ought to be nearer four hundred. In cattle the amount of our premiums is very good; in horses likewise. In sheep, deficient—not half enough. In swine, very deficient, and there ought to be four times as much offered. In fowls we do not offer enough. In grain and root crops our premiums are not one-fourth as large as they should be. In domestic manufactures we do not offer one-eighth enough. In fruits and flowers we ought to give four times as much. All this could be accomplished with the same amount of money if "*trials of speed*" were abandoned. And the writer has no doubt but that as much money would be pledged to pay premiums as if the *racing* was continued. Besides, this would give premiums such as would induce farmers to send articles to the Fair to compete.

What farmer can afford to send swine or sheep to the Fair for the small amount of premiums offered and the large freight bill that he is obliged to pay? Why, if he comes from any other direction than the line of the Northern Central Railroad, it will cost as much to get his animals to Pimlico from Baltimore as

the premiums amount to, and probably more, and then he only has the chances of winning.

The amount of premiums and the arrangements with the railroad companies ought to be so fixed that every farmer in the State would feel a desire to send something to the State Fair.

In regard to County Societies and the State Society, there should exist a desire for mutual benefit, and such arrangements made that their exhibitions should not conflict, but that most, if not all, the articles exhibited at the different County Fairs should be concentrated at the State Fair, and make one grand exhibition of the productions of a State that can be among the first in agricultural productions if she will.

Of course there is much more to say on this subject, and I may hereafter give you another article on it. Rest assured that I am anxious to see Maryland point with pride to her State Agricultural Society as a great success.

SPEED THE PLOUGH.

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FENCES.—From a letter to us from a practical and intelligent Maryland farmer we extract the following concerning fences: For several years we have been repairing the old worm fences with 6-bar post and rail fences, taking the old rails for the new fence; and we have saved enough to keep the old one in repair, without cutting 100 new rails for inside fencing, for ten years. I make my own fencing, hewing and mortising the posts with a double-edged mattock-bitted axe, *never* boring them, as those chopped out are decidedly better. You can graduate the holes; the rails do not need half the pointing, are not feather-edged, and the posts will last five years longer than the bored ones.

PEARS.—A friend in Baltimore Co., Md., very successful in pear culture, gives the following as his experience in varieties suitable for his location: Bartlett, Belle Lucrative, D'Anjou, Flemish Beauty, Seckel, Vicar of Winkfield. He says: I think it difficult to prune standards too much for the first five or six years, or to plant them too young. Will our friends in different localities give us their experience as to varieties?

A REQUEST.—We ask our agricultural and horticultural friends to favor us, from time to time, with the results of their observation and practice. What we want is *facts*, which will be of use to our readers.

THE AMERICAN FARMER
AND
RURAL REGISTER.

Published on the 1st of every Month by
SAM'L SANDS & SON,
No. 9 North street, near Baltimore street, Baltimore, Md. (*sign of the Golden Plow*)

SAM'L SANDS, { Editors and Proprietors.
WM. B. SANDS, }

TERMS—\$1 50 per annum in advance; 5 copies for \$5; 11 copies for \$10. See Premium List for larger number of copies.

Advertisements payable in advance, except those continued for a year or an indefinite period, which will be payable quarterly.

1 Square of 10 lines or less, each insertion	\$1 50
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1 " 6 "	40 00
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Each subsequent insertion, not exceeding four..	15 00
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Advertisements on cover subject to special contract.

BALTIMORE, MD., JANUARY 1, 1872.

To our Agricultural Friends.

Once more, in the course of events, we present ourselves before our old agricultural friends and the public, in charge of a union of the journals devoted to their service, with which we were associated for more than a generation. Although we have been in a measure withdrawn from public notice for some years, we have not been an unobservant spectator of passing events, and, without any fixed purpose of again putting on the harness, we have ever held ourselves ready to enter the lists whenever the appropriate hour should arrive.—Twice have we withdrawn from similar labors, with but little expectation of again renewing them, having, by the blessing of a kind Providence, accumulated a sufficiency of this world's goods upon which to rely for the comfort and support of our declining years, and for a provision for those dependent upon us. For the second time, however, have circumstances supervened to induce us, for the sake of others, to renew our labors. And whilst we admit that this latter consideration is the prompting motive of our present action, yet we can truly say that at no former period were we ever actuated by a more dis-

interested zeal and sincere love for the work upon which we are now again entering. In every quarter it is affirmed that the country is now ripe for a renewed effort in behalf of the cause of Agricultural advancement, and we are vain enough to believe that there is work for us to do in this awakening of a general spirit of inquiry and improvement.

We will not here enter into a general delineation of our views and objects; these will be fully set forth on other occasions, and we can, at present, only refer our old friends to our former course and principles of action, as a guarantee for the future. We can justly claim, we think, that we have ever been the true friend of the farmer, and between him and speculation, extortion and fraud, our journal will still always be found on the farmer's side, steadfast and fearless. Our columns will be open to all for a free discussion of every subject connected with the interests of the agricultural classes; but they can be used by none for selfish or interested purposes; and, as has ever been our course of action heretofore in the conduct of an agricultural press, nothing of a personal, sectarian or political character will be admitted to our pages.

We have connected with us in the present enterprise our only son, who was early in life designed for the vocation in which he now engages. Fitted by education for the work, it was long since intended for him to adopt the profession of his senior, and to enter upon the discharge of its duties in connection with him; but just as he was about to do so, the war interfered with our business, as it did with that of so many others, and he has since been engaged in other pursuits. He is now at leisure to embrace his first love, and circumstances have induced him to take hold of the old AMERICAN FARMER, with which we have determined to unite the *Rural Register*, published by us for four years after our withdrawal from the FARMER, and which, we flatter ourselves, was one of the best rural family journals ever published in this country. The *Rural*, however, like all the other papers in the South devoted exclusively to agriculture, was suspended in consequence of the war, two years after the FARMER had disappeared from public view. We recommend our publication, in its combined form, under very favorable circumstances. With means ample for every demand of our paper, we intend to push it with energy and perseverance. The

long experience of the Senior is well known to and recognized by the farmers of every section of the country; and though advancing years have been creeping on, yet he is still blessed with health of body and vigor of mind; and he has the prospect before him, that, as in the past, his labors have been pleasant and congenial, so in the future, in the intercourse about to be renewed with his old and well-tried friends, his declining years will be amongst the happiest of his life. The Junior, who enters upon this work as that which is to be for life, will relieve us of the more laborious portions of the publication; and, if we may be permitted to say it, we believe in due time, when experience shall have been combined with his taste and talent in the pursuit he has chosen, he will not be found far behind most of his cotemporaries.

The AMERICAN FARMER was commenced in 1819 by the late John S. Skinner, Esq., and was, we believe, the first journal ever published in this country devoted exclusively to Agriculture. The first number was issued without a single subscriber pledged in advance, but the facility Mr. S. enjoyed of bringing to his aid the best talent of the whole country, soon gave his paper high rank in the literature of the day, and obtained for it an immense circulation in every quarter. And here we would remark that the first series of the work contained a greater number of valuable papers upon agricultural subjects, and had a larger list of able correspondents, men of the highest standing in the republic, and of practical experience in their vocation, than any journal that has ever since been issued from the press. After some years of its publication, Mr. Skinner disposed of an interest in the work, and subsequently his colleague purchased the other moiety, when the old editor originated the *Turf Register*. The departure from its helm of the founder of the *Farmer*, soon had the effect of causing its decline, and in a short time its suspension ensued. The last proprietor subsequently renewed its publication under the title of "The Farmer and Gardener," when we became connected with it as printer. It did not prosper, however, and soon afterwards we succeeded to its proprietorship, resuming the old title of *American Farmer*. For about twenty-five years we were thus associated with it, and restored it to its pristine position of honor and profit. Circumstances then required a disso-

lution of our connection with it; but, a year afterwards, in accordance with a privilege reserved when leaving it, we originated, as noted above, the *Rural Register*. Those in whose interest we commenced the latter work, engaged in other pursuits as the country became involved in fratricidal strife, and we determined to suspend the publication until a more propitious opportunity offered to renew it, if it was deemed proper so to do. That time has now come, and having purchased of the last publisher the good will and title of the *American Farmer*, we have united the two papers, and now launch our bark, newly rigged, equipped and manned, upon the ocean of public favor, not doubting that many of our old friends who have heretofore voyaged with us, as their fathers did before them, will again proffer helping hands, and aid in securing to the *Old Pioneer* of American Agricultural Literature, pleasant and prosperous gales in the career upon which it has entered.

SAML. SANDS.

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TO OUR FRIENDS EVERYWHERE.—Will those into whose hands this number may fall, oblige us by presenting the claims of our journal to their neighbors? A very little effort in almost any neighborhood, would secure a good list, and gain one of the liberal premiums we offer, or at any rate, an extra copy. Many farmers, and the residents in the suburbs of cities and towns, could be easily induced to subscribe, if the character of the paper was made known to them.

THE FIRST NUMBER of the "*Farmer and Rural*" will be sent to some persons who may have not ordered it in advance; if they wish to continue it, they will please notify us. *Postmasters* will also oblige us by informing us of any mistakes in directing papers; and any copy of the paper or prospectus forwarded to their offices, not called for, they are authorized to use in the obtainment of subscribers, upon the terms specified in our prospectus.

ANY PERSON desiring to collect subscriptions for the *Farmer*, with a view to securing a premium, will be furnished, on application to us, with copies of our prospectus, specimen numbers, blanks, &c.

We will be glad also to send to all who may wish to inspect them, specimen numbers of our paper. We would willingly circulate 10,000 copies in this way, of this issue.

ALL GENTLEMEN of taste in rural affairs, will oblige us by interesting themselves in behalf of the circulation of the *Farmer and Register*. They will find that the encouragement of a taste for improvement will be a sure means of materially benefitting their neighborhood, and consequently increasing the value of property in the vicinity.

APOLOGIES.—It is usual in the first issue of a periodical for the publishers to offer apologies, with a promise of remedying any shortcomings thereafter. We will not, on this occasion, follow the example, as we expect, from present appearances, that we shall do more than we promised in our prospectus. Still we must admit that in some of the departments of the paper we do not feel that we have been able to do full justice to our own plans. As to the mechanical execution, we have entrusted that to Mr. JAMES YOUNG, whose well-earned reputation in the "art preservative of all arts" is a sufficient guarantee that his part of the work will be satisfactorily done, and that the *Farmer and Rural* will at least favorably compare with any of its contemporaries. Mr. PARKS, an artist of this city, engraved for us the handsome headpiece on the first page of the cover, as also the cottage designs which adorn our pages.

OUR AGRICULTURAL AGENCY.—We have determined to re-commence, with the issuing of our journal, the **FARMERS AND PLANTERS' AGENCY**, which we so satisfactorily conducted in former days. This branch of our business was found very advantageous to those at a distance who had no regular Commission Merchant or Factor in this vicinity; and many availed of our position and services to purchase *Fertilizers, Improved Live Stock, Farm Implements and Machinery, Seeds, Trees and Plants*—in short, everything required for the use of the farm. This city is a central point for the better procurement of supplies in these several departments, and we flatter ourselves that, by our experience and discrimination, we will be enabled to secure full justice to those who may require our services. We will only add, that the same judicious care exercised for their interests which heretofore characterized our Agency, and which rendered full satisfaction, will be observed in the future.

OUR CONTRIBUTORS.

THE HON. WILLOUGHBY NEWTON, of Westmoreland county, Virginia, has forwarded a paper for our first number which will be read with the deepest interest, and we heartily tender him our thanks for his contribution. His subject is one of absorbing interest, and doubtless, as he suggests, will elicit comment from others; and, as "in a multitude of counsellors there is safety," we hope the pages of the *American Farmer* will, as in former times when the interests of agriculture demanded it, be the medium through which the suggestions of the leading minds of the country may be elicited, upon the question propounded, of "*what shall we do?*" We know of no man who could more ably and appropriately "set this ball in motion." No one, probably, since the days of Mr. EDMUND RUFFIN, has enjoyed greater influence with the farmers and planters of the Old Dominion than does Mr. NEWTON. We have reason to hope that he will be a regular contributor to our pages, and we thank him for the kindly greeting with which he, and so many of our old friends and fellow-laborers of former days, have responded to our call to aid us in the good work in which we have again engaged.

WE ARE PLEASED to present to our readers the article on Phosphates and Superphosphates, from the pen of Professor P. B. WILSON, an accomplished and skillful chemist, now of this city, but formerly of Busen's Laboratory, in Munich, Bavaria, and afterwards an assistant of the world-renowned Baron Justus von Liebig, whose labors have achieved so much for the cause of agriculture. It will be found almost entirely free from scientific technicalities, and gives a very clear exposition of the nature and value of the South Carolina phosphates; and the practical directions, by which any intelligent farmer can make his own superphosphate, and thus know its contents and their cost, will be found very valuable.

OUR OLD FRIEND, DR. DAVID STEWART, formerly Chemist of the old State Agricultural Society of Maryland, was among the first to congratulate us on our again taking hold of our old journal. The Dr. is now engaged in practical agriculture, and, as will be seen from his communication in our "Dairy" department, extensively interested in butter-

making in the neighboring state of Delaware. His theory upon the management of cows after their first calving is novel, and will probably subject the Dr. to some criticism.

[¶] ON ANOTHER PAGE we give a communication from a correspondent who considers that in some respects our State Agricultural Fair is not as successful as it should be, and as it might be made. Whilst we are not personally acquainted with the author, he is known to us by reputation as an enterprising and progressive farmer, and, being himself a large exhibitor and prize-winner at the Shows of our State Society, his discussion of the subject is entitled to consideration.

[¶] FROM THE HON. D. W. NAILL, of Frederick county, Maryland, we publish a communication, which will find a response in every heart which beats in unison with that of this true son of the soil, in respect to the dignity of agriculture. In a note accompanying the communication, our old-time friend remarks: "I have pleasure in renewing business relations which I believe commenced in 1827"—44 years ago!—an intercourse and friendship which has never been interrupted.

[¶] OUR LADY FRIENDS will be pleased to find that Mr. W. D. BRACKENRIDGE, the eminent Florist and Nurseryman, who in former times enriched our journals with his invaluable hints upon subjects pertaining to his profession, has again consented to take in charge of the same department of the *Rural and Farmer*, and, as will be seen by the beautiful effusion of his pen in this number, will be a regular monthly correspondent. We consider ourselves peculiarly favored by having been enabled to secure this permanent addition to our staff of contributors.

The good housewife will also perceive that we have a correspondent who is furnishing us with *recipes* for the table. If we mistake not, they are original and selected by a lady of judgment, who, we hope, will continue to furnish us monthly with a few more of the same sort for the "Home Department."

[¶] From an old and valued friend, "A. B. D.", we receive a cordial greeting upon our again entering the field of our former labors. Such tokens of appreciation and remembrance are extremely gratifying to our hearts.

[¶] In the article on Observation, by PROF. SCHAEFFER, a gentleman eminent in the scientific world, our younger readers (and also those

older ones not too confirmed in their ways to profit by them,) will find some valuable hints on the formation of correct mental habits.

[¶] Our correspondent N. F. F., is an accomplished and successful horticulturist, of large and varied experience, and we hope hereafter to have many good things from his practical pen.

[¶] To Mr. RIDGELY, for his practical notes on Grape Culture, we and our readers are much indebted. We hope to receive many other favors from the same source.

Several other communications of value have come in, too late for us to note their authorship, and others too late for insertion in this number; but we thank all of our friends who have helped to add to the interest and variety of our pages.

[¶] AMONG OTHER PAPERS for our February number we have on hand, received too late for insertion in this issue, an articie on "Jersey and Guernsey Cattle—Their Characteristics and Differences," by a gentleman well qualified, from long experience in breeding these cattle, to speak on the subject—one which is just now attracting considerable notice. We are promised from the same pen, for a future number, a sketch of the Ayrshires.

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RURAL ARCHITECTURE.—The design for a country residence, which appears in this number, has been furnished us, with the description, by Mr. HENRY BRAUNS, Union Bank Block, Baltimore, an architect of established taste and talent. We take the opportunity of saying to those of our readers who contemplate building that they will commit a great mistake if they fail to secure the services of some architect of skill to prepare their drawings for them, even if they are so situated in the country that their work cannot receive his supervision. In any case, properly prepared drawings and plans make what is wanted clearly understood, and prevent any misconceptions as to the wishes of the owner, so that the carpenters or builders go to work with much greater confidence, and their bids, in case of contract work, are apt to be considerably less than when much of the work to be done is matter of guess-work or of after consideration.

The general charge among architects is two and one-half per cent. on the cost of the building for general drawings and specifications, or five per cent. when the work is done under their supervision.

Clubs—We have received numerous applications for copies of our prospectus, and for sample copies of the *Farmer and Rural*, from parties who are about forming clubs. The first we have forwarded, and the latter we will send as soon as this number is printed. We would suggest to those intending to try for our premiums that they forward the names as fast as they receive them, and up to the time specified (31st March) they will be counted in the whole number required, and the premium to which they are entitled will be forwarded.

Pamphlets, &c., Received.

Catalogue of Shorthorn Herd of Charles E. Coffin, Muirkirk, Md., and also catalogue of prize winners of 1871 of same herd.

Catalogue of the Virginia Land Agency of Wm. Holman, Cartersville, Va. Mr. H. offers for sale many farms in one of the best regions of Eastern Virginia, at prices which seem very low. The climate, soil and productions of that section are such as ought to attract settlers.

Programme of the Pennsylvania Fruit-growers' Convention, which assembles in Philadelphia January 17th.

Circular of Agricultural Lectures and Discussions, under the auspices of the Illinois Industrial University, at Urbana and other places in Illinois, in January and February.

Piedmont Land Advertiser of D. D. M. Diggs, Gordonsville, Va.

AMERICAN DAIRYMEN'S ASSOCIATION.—We have received a circular giving the programme of the annual meeting, to be held at Utica, N.Y., January 9th to 11th, 1872, of the above named association, of which the Hon. Horatio Seymour is president. The occasion promises to be one of more than usual interest, the services of many of the most eminent men of the country, distinguished for their practical ability and skill in the various branches of Dairy Farming and the manufacture of Butter and Cheese, having been secured to deliver addresses during the session of the Convention. We notice, amongst others, the names of Prof. G. C. Caldwell, of Cornell University, N.Y., Prof X. A. Willard, of the Rural New Yorker, and Mr. C. Schermerhorn, of N. York, who has just returned from England, where for two years past he has been establishing cheese factories,

the landholders of Derbyshire having pledged the sum of \$20,000 to secure their introduction into England. Several other gentlemen are announced to speak on special subjects connected with Dairying, and much valuable information will doubtless be elicited and widely published. We should be glad to know of a large delegation being present from Maryland and the States to the South of us, all of which we hope to see becoming largely interested in this important branch of husbandry. The admission fee to the meetings is \$1, ladies free; fifty cents additional will constitute a person a member until January, 1873, and entitle him to a copy of the next annual report and other publications issued by the Society. In the next number of the "Farmer" we will give an outline of the proceedings of the meeting.

AGRICULTURAL COLLEGES.—The N. York College rules require the students to labor on the farm three hours each day; and there are some forty or fifty of them being instructed in the practice as well as in the scientific theory of farm drainage. A knowledge of this subject is one of the most important requirements of the go-ahead farmer, yet one, at the same time, probably less understood than any other which usually claims his attention. It is, indeed, a thing of which one cannot become practically informed if he masters all the text-books printed. These are useful, of course, but only in connection with the experience necessary to put their rules into practice. Hence the great utility of the course of which these young men are receiving the benefit. On leaving Cornell and engaging in farm-life, each will become—just what is wanted in this respect—an example and an authority in his particular neighborhood. Carrying the scientific principles they have acquired into their every day life, they will be looked up to and consulted, we predict, by hundreds of farmers anxious to be informed on this, to them, important topic. They will thus become centres of knowledge, from which information will radiate in all directions. We hope this branch of practical education will be given in all our agricultural colleges the attention the importance of the subject deserves. We are assured by the President of the Board of Trustees of our Maryland College, that steps will be taken to include this subject among those taught in that institution.

THE AGRICULTURAL DEPARTMENT AT WASHINGTON.—We have received from Judge Watts, Commissioner of Agriculture, a copy of his first Report, which accompanied the President's Message to Congress. The Commissioner alludes, with gratification, to the impulse given of late to scientific farming, and to the higher rank which agriculture is assuming, and very justly concludes that no other of the material interests of the nation, demands as much of the fostering care of the government. In consequence of the want of economy, care, and skill, with which agriculture has been conducted at the South, with the excessive devotion to a few staples, and an exhaustive system of culture, their lands have become impoverished; and the Commissioner pledges himself to give special attention to that section of the country, and to endeavor to introduce a rotation of crops with the growth of grains suited to that latitude. We hope to be a zealous co-laborer in this good work with the Commissioner, and will, from time to time, transfer to our pages some of the valuable papers which will be found in his Reports. A large number of exotic plants are under cultivation in the Arboretum in the Department grounds, one of the most promising among which is the New Zealand flax, (*Phormium tenax*), the fibre of which is remarkably strong, and which is believed to be well fitted for the swamps of the South. A prominent study at present in the Statistical division of the Bureau, is the trans-Mississippi region, showing the progress of settlement and the status of agriculture. The Entomological division has increased its correspondence and enlarged the area of its investigation. Experiments have been successfully made in the rearing of the silk-worm. Its valuable collection is constantly increasing. The arrangements for exchange of seeds with foreign agricultural authorities have been greatly extended, but the distribution of seeds is complained of as being in too small quantities. During the year 607,321 packages of seeds were distributed.

We also acknowledge the receipt from the same source, of a copy of the Report for 1870 of the late Commissioner, Gen. Capron. We shall cull from it some good things.

For our liberal list of premiums, see Prospectus on second page of cover, and also on advertising sheet.

LIMA BEANS.—This is a very profitable crop to truck farmers, and a large yield can be obtained from a small space of ground. In a late visit to a friend in Baltimore county, Md., we noticed quite a large lot of this excellent vegetable, for which he informed us he got \$4 a bushel. We shall before planting time arrives in the spring, give, with other hints on gardening, particular instructions on the cultivation of this vegetable; but, for fear the item may then escape us, we wish here to publish a useful idea from the editor of the *Germantown Telegraph* to prevent the seed rotting, when planted, in a wet spell. He says they can be protected against this danger by simply *greasing* them well before planting. It should be done thoroughly, and, unless the season be extremely wet, it will prove a sure remedy. A few years ago, while a neighbor had to plant his bed a third time, his was wholly uninjured. This is a hint worth acting upon. It may insure many a crop of early Limas, which everybody admits are the "bean of beans."

"MORE LABOR AND MANURE, AND LESS LAND!"—While preparing this number of the *Farmer* for the press, in turning over a pile of "American Agriculturists" upon a table in our library, our eye struck the above capital text. The proposition itself is one of the fundamental principles of our agricultural faith as to the needs of our farmers; the manner of stating it is in that crisp style peculiar to the editors of the well known journal referred to—a style, in its conciseness and point, the acme of efficiency for attracting the reader's attention, and, in attracting, keeping it. One cannot preach too often from that text, or stick too close to it when preaching

PHOSPHATES AND ASHES.—The great value of these fertilizers to the farmer is forcibly shown by Dr. Nichols, an extract from whose address, lately delivered, we have laid off for insertion in our pages. A writer upon the same subject presents some remarks which are also worthy of being published:

"Most farmers express themselves perfectly satisfied with barnyard manure, thinking that perfectly sufficient to meet the requirements of any crop; and, in fact, they do not know that one crop differs from another in the quality of its fertilizing food. Barnyard manure is excellent; and, being home-made, is the cheapest infallible resource of the farmer. But there are crops which require a stronger

element added to it. In the majority of farm crops, the most powerful fertilizing ingredients are phosphate of lime and potash. If farmers can be practically taught that with this intermixture of those two elements to their manure, any kind of crop can be made to pay back the cost in a tenfold ratio, thus enabling their home-made manure to go over a larger surface, a great and important result will be accomplished in the improvement of the agriculture of our country."

STEAMING FOOD FOR STOCK.—That a saving of at least one-third is made in steaming food for stock is admitted by most farmers who have made the trial, but the difficulty is to get a cheap and simple apparatus for the purpose, which will be within the reach of every farmer who has half-a-dozen head of stock. We hope this difficulty will be obviated ere long, as we notice that several inventors at the West have lately introduced steamers that seem calculated, from the description given, to answer the desired purpose, and at a price suited to the means of small farmers. The following directions are given how to manage the operation:

"The cut hay, straw and hay, or other cut feed, is moistened with a large watering-pot (if done by hand) at the rate of at least two gallons of water to five bushels of feed, while it is being stirred up with a fork; then, if bran, meal, or other feed is used with it, it should be sifted on and mixed evenly. Two quarts of bran to the bushel of straw will render wheat, barley, oats and pea straw equal to good timothy hay. A little salt should be added, which will be perfectly diffused through the mass. The feed must always be moistened before steaming, for steam will not cook dry hay or straw, but only dry it more. Moisture is required to absorb the steam."

Agriculture, the Source of Wealth to a Nation.

FREDERICK COUNTY, MD.

COTTAGE FARM, Nov. 30th, 1871.

Messrs. Samuel Sands & Son:

Gentlemen.—It afforded me pleasure to learn from the public prints that you propose again to resume the publication of *The American Farmer and Rural Register* combined, on the first of January next, and I hope you will meet with the encouragement due to the original pioneer in agricultural literature in the United States.

It may not be out of place to send you an extract from the preface to the May number of *The Modern Husbandman*, published in England 1741, a copy of which accidentally

fell into my hands recently, showing how the agricultural mind in the "mother country" was impressed at that time, and affording some matter at least for reflection among American farmers at present. After discussing the merits of the plows then in use the editor goes on to observe:

"For, tho' the soil and seed be good, the manure plenty, and all other necessary contingencies are completely furnished, yet, if the plowing part is not performed in due order, our return at harvest will, in course, be the less. Wherefore, as God provides for many good things of this world, by the labours of the ploughman, it is our necessary business, to find out all possible improvements relating thereto; as the late dreadful scarcity of corn, &c. in 1740, is a most woeful, but plain proof of. The labours of a country life will rise in our esteem, if, besides their agreeableness to our nature and frame, we consider them as the source of all the wealth of the nation; Trade and Commerce, which are esteemed the two greatest foundations of national wealth, cannot have place, but in the foundation of this original and natural employment.

"Agriculture not only furnishes wealth to a nation but hands also able and willing to defend it, and is perhaps, the best nursery of good soldiery in the world; and the Country life, which thus qualifies men for necessary defence, naturally introduces a disposition averse to civil tumult and offensive war. The occasion over, their swords easily convert into plough shares, and their spears into pruning hooks. Agriculture was, perhaps, the parent of all those sciences, arts, and employments, which have since carried their heads so far above her. But it rises still higher, and reads continual lectures, not only in speculative, but practical philosophy; it conducts to morality, and every social virtue, and enforces a due regard to, and dependence on the SUPREME BEING, in which consists the essence of religion."

The modest use of the word "perhaps" in the above extract shows the same subdued feeling now existing to a great extent among the rural masses of the United States when contrasting themselves with those who have been favored with a better education.

This need not be so, if the rules governing and the course of studies in our rural primary schools at least were of that practical character suited to their condition, and their instructors substantially qualified to fill such honorable and responsible positions. I may resume this important subject again, and also impart from time to time any thing I may deem of advantage in agricultural pursuits. Renewing the hope that you may be successful in your publication,

I am yours,

D. W. NAILL.

Noah Webster on Agriculture.

GREENWOOD, 10th Dec., 1871.

Messrs. S. Sands & Son:

Gentlemen: I sincerely congratulate you upon your enterprise, in reviving the old *American Farmer*. It has long been missed from our fireside, and its republication, in monthly visits, will be cordially welcomed by many of its old subscribers, and, I trust, by very many new.

As appropriate to its resuscitation, as well as for the intrinsic merit of the article, and the broad and wholesome lesson which it teaches, allow me to send you an extract from a communication of the celebrated Noah Webster to Robert R. Livingston, President of the New York Agricultural Society, upon the subject of "raising potatoes." This distinguished Lexicographer, whose fame is co-extensive with the English language, took pleasure and found time, (amidst his immense labor, in writing his great dictionary, in which is given the orthography, pronunciation, part of speech, meaning and derivation, and often the synonym, of every word known to our language,) in bearing his testimony to the importance of agriculture, and in contributing the result of his own experience for the benefit of mankind. In this respect how nobly does the farmer contrast with almost every other business pursuit of life. The moment he makes a new discovery, like the woman who had found the lost piece of silver, he invites inspection from his neighbors, details the process, and proclaims the result for common use and adoption. No patent right—no card forbidding "admission to these premises"—no secret process, to be enjoyed by no one but the discoverer—but all is open, free and inviting, and the process willingly imparted for imitation and adoption. Such was the example set by Noah Webster in the last century, and I am happy to say in this respect, his example is not lost in the present.

He prefaces his process with the following remarks:

" You know my love of the first and best occupation of man—*agriculture*—and how anxious I am to see this most useful business improved among my fellow-citizens. In my present situation I have no opportunity to make experiments on a large scale; but some observations made the last year, on the growth of potatoes, may possibly be worth the notice of the Agricultural Society. From a single experiment, I am led to the following results:

1. The seed potatoes should be those of full growth.

2. Cuttings produce more than whole potatoes.

3. The English Whites grow to perfection in a shorter time, and upon a poorer soil, than the red. The difference is essential. They are, therefore, best for early potatoes.

4. Potatoes will not come to perfection without the sun. Therefore nothing is so prejudicial as to plant them too thick, especially upon rich soil.

5. The cuttings in drills, where the land is light, will answer well at nine inches distance. This seems to be a good distance for the whites. But in rich land, especially if the potatoes be of the red kind, the stalks of which grow to a large size, the distance should be not less than from twelve to fifteen inches.

If these observations contain anything not generally known, you are at liberty to lay them before the Society. If not, the communication you will please to suppress."

I am, sir, your obedient servant,

NOAH WEBSTER.

New York, April 29, 1797.

One scarcely knows which most to admire, the benevolent object of the communication, the clearness of detail, or the modesty with which it is given. . . . A. B. D.

BEET-ROOT SUGAR.—The production of beet-root sugar, which commenced sixty years ago in France, has gradually extended throughout the continent of Europe, until now about 2,000 establishments are employed in its manufacture. In 1870, according to Dr. Voelcker, 689,000 tons were produced. Another authority places the amount at 900,000 tons. This is more than one-fourth of the entire sugar-crop of the whole world, so far as known. The manufacture is gaining ground in England, and has already become successfully established in the United States—in Wisconsin and California. In Illinois it is hardly successful as yet. The Sacramento Company, of California, made last year 500,000 pounds, with an absolute pecuniary profit, and are largely extending their operations. In Wisconsin the experiment has been equally successful. The experiment made in Illinois a few years ago failed, more from want of experience than any other cause. The managers are hopeful of finally succeeding in making their business profitable.

MR. I. D. G. NELSON, of Fort Wayne, Indiana, writes to the *Rural New Yorker* that he has grown rye for a number of years and considers it a valuable spring and summer feed for all kinds of stock *except* milch cows. He considers it his duty to caution dairymen against its use, as he finds it imparts a very disagreeable odor to the milk and butter. This objection to rye is not new to us, and it has always been excepted from the green food of milch cows.

Scientific.

How to Observe and what to Observe.

By GEO. C. SCHAEFFER, M. D., Washington, D. C.

It is acknowledged by all that every thing we can learn from external objects is derived either from observation or from experience. The only difference between these two modes of obtaining information, consists in the fact that, in one case we notice, and in some way or other record what we have noticed, while in the other we are able to alter the condition of things, and thus observe them under new circumstances, so that at last all our knowledge comes from pure observation.

It becomes then a matter of great importance that we should understand something about this great means of obtaining information, about our way of gathering it, and the things at which we should look, in short, that we should learn how to use our eyes and other organs of sense.

But what we have thus gained is but of limited use, for it can only tell us what will happen under precisely identical circumstances —hence, as it is almost a law of our nature, every one proceeds, whether he knows it or not, to reason upon what he has seen, and to apply the result to new cases which he has not seen. We do not in this place pretend to dwell upon the mode of reasoning, which in some way or other constitutes, at least, the beginning of all real science.

Of all men, who living much in the open air, are obliged to look at the sky, the earth, and what grows or lives in the one or the other, there are none who have better opportunities of observing, and so adding to the sum of human knowledge, than the cultivators of the soil, and those who engage in the duties connected with the various employments usually involved in that occupation. But there are no men who more really need for themselves, or for others to make use of them for their benefit, the results of such correct observation; hence it becomes a matter of the first importance that every means should be given to aid, encourage, and, as far as possible, instruct this great faculty of acquiring knowledge. In former times, the ways for helping observation were few, and by no means attainable by many. But, in our time, much of this has been changed. Each

occupation has now its special organs; and the agricultural journals, properly conducted, cannot fail to produce good results.

As to the peculiar aids to proper observation, thanks to the increased supply of books, there are not few which can guide us to the observation of nature, though there is still a want not quite supplied just where it is most needed. But the general popular education has already done much, and hardly any one is now not far better off than his father or grandfather in this respect.

Then, again, by a modern custom, quite popular, but often very inconvenient to the proprietors, our agricultural journals endeavor to give answers to properly made inquiries. But it must be remembered, that it is far more easy to ask questions, upon important subjects, than to answer them.

If we should pretend to give merely an outline of the more remarkable topics to which observation should be directed, some of them of immediate and important use in their results, we might occupy pages—to give the simplest possible directions for observation, in particular cases, would require still more. We prefer, therefore, for our present purpose, to confine ourselves to general directions, and to leave to an intelligent conductor of the press, the selection of such topics as may best carry out the objects proposed.

It is not necessary that any parade of means and appliances should be had for really useful and valuable results; and, while all good means are desirable, it is quite possible, as we can show, that any man, unaided by anything outside of himself, can make good observations, which are not made in places even provided with abundant instrumental appliances. A whole host of meteorological observations, which can help to explain phenomena of a transitory or periodical nature, is now open to investigation in just this way, and there is no one of them without immediate practical use to the farmer.

For instance, in this region, the summer thunder storms tend to follow a general law as to their course and time or times of day of their occurrence, and even of intervals between them. No one can doubt the worth of this information regarding them, and yet the careful observance, at a few points, might make the whole matter clear; and still such observations cannot be made, or are not made, at regular appointed observatories,

while any careful and intelligent man can do all that is required.

But leaving special cases, we may give a couple of general rules of application.

1st. Always be careful that observations are made carefully, and as carefully stated. There should be no mistake as to the facts observed, of whatever kind they may be, and the best way of avoiding mistake, is to note the results as soon as possible.

2d. Always give merely the results of what you have seen, and nothing more, avoiding all mixture with preconceived notions or theories.

As for our first rule, it seems plain to every one that if we have anything to tell, it must be done correctly; but it requires little notice of the mode of giving testimony to any facts, to find that precision is not usual to every one, and yet every one is, or may be, called upon to testify. A good way to form habits of accuracy is, when we notice anything worth recording, to shape to ourselves in our minds, the precise form of words in which we could give it. In most, if not in all cases, such words recorded, will be of the greatest value. It is not easy for every one to acquire this habit, which, after all, must be the result of some trial and experience—for something of this kind must be attempted by every one who would give useful information. We have often considered what it would be if in the every day affairs of life, men would try at once, and upon the spot, to shape into words just what they mean to say of what had passed before them. The results would be seen in our courts, and the value of testimony so given, would at once be appreciated, and due value given for them. But it is by a sort of unconscious manipulation of our testimony, by talking over what we have seen, that we are led to give a different statement from that which we had originally intended. We have, it may be, gained new information, but this is not our testimony as to the fact, unless we so state it.

As to our second rule, there is, possibly, more difficulty in carrying it out. Almost every one has some preconceived theory for what he has seen, or gathers it from some one else at the time. If any one attempts to make a simple statement of fact, he will find it no easy matter to do so without mixing up the mere statement with some preconceived notions of his own, or of others, which have

nothing to do with the mere fact. In fact, just in proportion as one becomes able to give this pure and simple narration of the truth, is his power, by correct observation, to add to the sum of our knowledge.

To bring these remarks down to practical application, we may say that, even in a general way, if the facts recorded and sent to our agricultural journals, were given with due observance of these rules, they would be of far greater value than they often are. But if not even facts gathered in this way, and yet still open to examination, are not given, but mere and pure speculations are used to build up, by a specious process of reasoning, laws which are to be carried out, as if on a true basis, to still higher generalization—we must see that all real science is left out of sight.

It is the fault of the day to use such vague speculations, utterly unsupported by fact, upon which to dogmatise to others. Without any true foundation, it can be easily seen that the results are not those of real science; and while yet men, who are the advocates of true science, men of real ability, and who, indeed, do know better, often lend themselves to, or are carried away, perhaps unconsciously, by this false spirit of the times, and disturb others by their lucubrations, which require much pains and trouble to be afterwards swept away by real facts, possibly already well known, but to which their statement of false facts, or mere speculation, aided by their high names and authority, have given undue value. It is more necessary than ever, that those who simply profess to be mere observers, should strictly confine themselves to the mere simple observation of correct facts.

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CORN FODDER.—A correspondent of the *Massachusetts Ploughman* says: "I am a thorough going believer in corn fodder, and I say to all farmers, especially those having small farms, more likely to be affected by dry seasons, be sure to put a goodly piece of land to fodder corn, for it comes very handy, even if your hay crop is most abundant. In my case I rely upon this year's growth of corn fodder to take eight head of cattle at least half way through the feeding season."

THE best mode of fastening a horse in a stall is the English one of attaching a light weight to the end of the halter and allowing it to run up and down under the manger, which should always be boarded in front from the floor up. By this arrangement, the horse enjoys sufficient liberty and yet has no chance of getting cast by stepping over his halter.

The Dairy.

Will it Pay to make Butter in Winter?

Our best practical farmers say it will not pay, because the necessary meal, &c., costs more than all the butter that can be produced at fifty cents per pound. Moreover, they point to the largest dairies in this vicinity, which suspend operations during the winter, and either board out their cows or keep them in the barn-yard on corn-fodder. Again, they urge the probable benefit which may result from "an entire cessation of the lacteal secretion for several months before calving." Now, we think, this last idea, however beneficial in prolonging the vitality of the cow, does not necessarily add thereto. Moreover, we think the development of the lacteal glands and apparatus *in utero*, is probably increased by the constant use in the corresponding parts in the mother, especially during the latter months of utero-gestation, when "marks," and even the color of the calf may be influenced by *external* influences, much less apt apparently to act physically. We think it important to select the bull calf of the best cow in the dairy, because "the cow gives character to the bull calf;" and subsequently this bull being thus characterised, *pre-eminently* influences the heifer calf upon the same principle. A third item of importance is the nutrition of the young calf during its first month, when many of superior breed are ruined by starvation, or improper food and attention, an injury which can *never* be counterbalanced by previous "high breeding," nor remedied by subsequent feeding, any more than in the case of a shoat which has been neglected. Such are proverbially worthless, and incapable of development. Upon the same principle, the importance of a fourth item is easily understood and appreciated. It is now our object to develop the *lacteal* or milk producing apparatus, and arrest the proportional development of the other parts of the heifer—in other words, to stunt or stop her growth, by impregnation, at an early period, in order to develop the mammary glands and their nutritious arteries. We insure a calf when two years old, by a young bull selected and raised as above. Such a heifer, when spared the next year, becomes an extraordinary cow, worth more than seven ordinary cows *as such*. The question as to the expense of winter feeding, is not answered by

the price of the butter in relation to the meal or extra food at the time; but we contend that the cow starting in the spring in "good order," may possibly repay, and the following fact may indicate, at least, one step in relation to the solution of this question; but no *one* experiment can decide, although it may elicit the comments of much more experienced and intelligent observers, or cause such to review the premises upon which their opinions are based, and embrace a *larger* field in viewing all the effects that may result, directly and indirectly, while making butter in winter. Having selected the best cows, without regard to price, and having accidentally a chance to select, at the sale of a stock, improved during many years, by one of our most successful dairies on the old Barney farm—such cows wintered in a complete soiling stable, on the best clover hay, meal and roots, with some corn fodder, cut and mingled with meal, should not only produce butter *all* winter, but excel in its production when allowed to graze in the spring. The food was more remarkable in *this* vicinity where the opposite course is in *contrast*, viz: large dairies containing various grades of cows, where the butter on the same grass would hardly equal half my product on an average per week.

When fifteen of my cows "came in," they averaged ten pounds per week; but one of them (I am assured) gave fourteen pounds during part of the previous season, but the following subsequent report of my dairyman, shows a reduction when *all* of my cows became "profitable" during the summer; and, although the report is meagre, it will afford the outline of some data, from which we may calculate the probable consequence of winter feeding. It is the impression of some that "a fat cow cannot have a fine calf;" but another proverb teaches that "a good cow, while milking *freely*, cannot become fat." Consequently, we are safe in promising good calves while we make butter during all the winter, especially as our dairyman gets one-half the product, and we are thus insured, in every respect, the best possible chance. The tendency to appropriate all the food to produce fat, is manifested by one cow, which I was assured actually "yielded nearly one hundred dollars in milk and butter last year;" whereas her milk this summer, on the best pasture, was worthless for butter, although abundant. I suspect this cow failed to produce a calf during the first

two years, and consequently developed unduly her fat producing qualities, which continue to have the precedence when supplied with nutritious food, until used in *great excess*, as with her *former* owner—then the surplus which she cannot retain, is given freely as above. Perhaps her mother was an extraordinary milker, but neglected, or *not milked*, during the latter part of her *utero* gestation, while richly fed, thus developing in the fetus this precedence for fat, however large the mammary glands. I cannot doubt the statement of her former owner, as to the large yield of both milk and butter last year; nor can I resist the evidence that she is a most unprofitable cow, unless constantly favored with "Benjamin's portion," and tempted to gorge herself with *extra* food; nevertheless, a good and abundant supply of water may be in a *very deep well*, and the butter she yields this winter, may compensate for her failure in *this respect*, while supplied with all the grass and "soiling material" which she would receive. She has served to illustrate the point I wish to make with regard to the probable reflex influences of making butter in winter—whether the subsequent yield must diminish in any proportion, is a question which requires more statistics than I can supply; but the annexed report may serve as a nucleus in connection with the extraordinary average yield of ten pounds per week earlier in the season, as stated above:

"In answer to your inquiries of October 28, I will state that the maximum of milk during the last summer, has been in June, 35¹/2 quarts, of 25 cows, per day, and made in June 634 pounds of butter. Last month (October) we have had an average of 180 quarts of milk per day, and made 396 pounds of butter."

DAVID STEWART, M. D.

Port Penn, Del., Dec. 1st, 1871.

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BEET SUGAR.—Bonsell's sugar factory at Alvarado, California, has just turned out a large lot of beet sugar from the new beet crop. Its quality is said to be the best. It is of a white, granulated substance, and is as sweet as the imported sugar. It has hitherto taken \$3,000,000 to supply California with sugar, while now there is a prospect that in a few years it will be able to export that article.

MR. WILLIAM E. BAKER has brought several wild buffalo or bison to his stock farm at Wellesley, Mass., and will try the experiment of crossing them with Jersey, Ayrshire and Durham stock. This experiment has been tried with poor results, heretofore.

Horticulture.

HORTICULTURAL IMPOSITIONS.

The more one sees, hears and reads, the more fully convinced he becomes of the necessity of first class periodicals, devoted to Agriculture, Horticulture and kindred pursuits, conducted by practical men. We have any quantity of theoretical fallacies—long since exploded—going the round of the general press, old humbugs rehashed and served as something new, equal at least to one of the seven wonders. The writer well remembers a case in point. Some years since a person in England wrote some articles in one or two of the London papers, stating that he had something to introduce that would entirely supersede wheat, it being immensely superior in every respect to that cereal; and, to make matters look ship-shape, it was stated how severely the English Cavalry suffered when marching or charging through fields of the stubble of this wonderful grain. The seed was put up in small packages and mailed to applicants at about 63 cts. a package, and the consequence was, that for about one week, a good trade was done in that line. But at the end of that time, Dr. Masters, if memory serves, of the Royal Horticultural Society gave a thorough expose of the whole affair, stating the seed to be *Holcus Saccharatus*, a sufficient quantity of which could be purchased for a few cents at any wholesale house in London to make several half-crown packages. But the gentleman was flying at higher game yet, he having a "New Creation" in an Exotic Fruit—the name of which we cannot just now call to mind, to introduce, and he had written to many English Noblemen stating the price to be FIVE GUINEAS a plant, but the challenge from the society to produce proofs, &c. put an extinguisher on this bright and shining light. This case is not cited as anything extraordinary, but simply to show how necessary it is that we keep ourselves well posted on these matters. We have lately had a little miff going the round of the press on this side concerning the "Tanyah," which is nothing more than the *Caladium Esculentum* or *Colocasia Esculentum*, cultivated by gardeners as an ornamental plant for who can say how many years, and that the root of it is edible has been known ever since it was named. Don't be gulled, friends! The Trophy tomato, the seeds of

which were sold at the unconscionable price of \$1 for five seeds, is the result of twenty years' careful selection. The tricolor Geranium, Mrs. Pollock, which netted her raiser about a hundred and fifty pounds sterling, was raised by Mr. Greene of Culford, near Bury, St. Edmunds, England, and was the result of careful crossing with different varieties for a special purpose. The same may be said of most of the fruits and flowers in cultivation. This fact should act as an incentive to our farmers to be careful in saving their seeds, a matter too often overlooked, and even when understood frequently ignored. From a varied and somewhat extensive practice in Horticulture, Agriculture, &c. we have long since learned that saving and proving the very best seed that can be obtained is a matter of the first importance, a fact of which your readers are doubtless aware, the difficulty in this case being to reach those who are not readers of such periodicals. I cannot help thinking that our general newspaper press would be doing the community good service by impressing upon their readers the necessity of subscribing to some first class periodical conducted by well known thoroughly practical men; we think the name of the Senior Editor, his standing in the community, coupled with his thorough, extensive practical acquaintance with the subjects of which this periodical treats, is sufficient guarantee that it will be made perfectly reliable.

N. F. F.

Baltimore, Dec. 5, 1871.

Grape Culture.

Notes and Suggestions on Grapes for 1871. By C. W. RIDGELEY.

There is each season a fresh class of students in the "art and mystery" of grape culture; and to such a few practical notes would probably be acceptable, however familiar to the experts in the profession. I propose, therefore, to notice briefly the varieties in my possession, in the order of their coming to maturity.

The *Adirondack* is a large, black grape, quite palatable, but not vinous, or "refreshing." It is a free bearer, and the earliest grape in my collection, ripening last season on the 17th of August. Though not *first-rate* in quality, it should be in general use, and will become

popular. Its quality has improved, with me, each year, and is decidedly superior to that of the Creveling and Isabella. It is hardy and healthy the year round.

Delaware comes next, ripening 21st August, the sweetest of all grapes, edible as soon, almost, as it begins to color, and best before it fully ripens. At maturity it eats almost like granulated sugar. Hardy in winter, its leaves often wither up in the dry August days, and the immature fruit is left to shrivel away on the nude canes.

Allen's Hybrid is a vigorous grower, and bears plentifully, but so prone to mildew that a good crop is the exception. It is a beautiful white grape, large as the Catawba, ripens 22d August, and in flavor, when the season is suitable, equal to the best. If you are willing to give it every attention, get it; neglected, it is worthless.

Creveling is usually among the first. Last year it matured on the 24th August. It sets its fruit badly; long, straggling bunches; rather a pleasant grape to eat; large and blue: not prolific; may be omitted.

Isabella ripened 25th August. It is a large, black grape, very productive, and almost certain to yield a good crop each season. I have counted fifty large, solid, mature bunches on a young vine, and found nearly as much fruit the next year. In flavor it is flat and insipid, but its bunches are large, numerous and very compact—the heaviest, probably, of all the *hardy* varieties. If you are one of "the million," and *must have Concord*, you will find no fault with Isabella, which has no bad *foxy* flavor like the former; what flavor it has, though *tame*, is certainly pure.

Clinton ripened August 30th; a *tart* grape, *vinous* certainly, and "refreshing." It has as much sugar as any other grape except one or two; but the saccharine element is absorbed in the acetic, and the result is too suggestive of *vinegar* for my taste. It *cooks* admirably, and its "jam" is delicious. Get one or two.

Concord, the grape for the masses, ripened 31st August; a large, black grape, hardy and healthy, and pretty sure to ripen a good crop. I have counted ninety bunches on one vine of extra size. *Foxy*, but pleasant on the whole, if eaten before fully ripe. Lay a few bunches away in the corner of a room for some days, and then, on entering the apartment, the *perfume* will be found more distinct than delightful. Such as it is, it may be depended on

for fruit. It has forced its way to popularity; and I do not now criticize, as I have done, those who prefer eating ripe Concourses they can grow, to waiting for the choicest fruit of other varieties which still fails to mature. I would plant some vines of this variety, not many.

The *Rogers Hybrids*, Nos. 1, 33 and 48, and *Salem*, the best of the family, all ripened September 1st. They are very large black or purple grapes, of good flavor, free bearers, and very desirable. Improving with age, I regard them each year with increasing favor. *Salem* is one of the choicest grapes in my collection, and the whole family, as far as my experience goes, is worthy of a fair trial.

York Madeira ripened September 6th. In size, color and flavor it closely resembles *Clinton*, but is less productive.

The *Iona*, Dr. Grant's favorite, ripened also on the 6th September. In my judgment, it is the most beautiful of the hardy grapes; bunch and berry are both large, of bright, wine color, and transparent. Less intensely sweet than the *Delaware*, it seems to be *sweet to perfection*. Let me introduce the impression it made on me on first acquaintance: "I accept the *Iona* as 'the American Grape.' In size, color, and all externals, the colored lithograph may be accepted as its faithful counterpart. Its flavor satisfies me, as the *Delaware* did not; very sweet, but not to cloying. The interior is solid, or meaty, like the foreign grapes, but melts promptly, filling the mouth with juice." To the above, after four years' experience, I adhere. There is, however, a "But" in the case, as in most others. The *Iona*, some years, ripens but slowly and partially; some of the bunches maturing in good time, and others never. What then? The impassioned youth prefers the capricious favors of one fair maiden to the constant smiles of all other damsels. And I would plant largely of this choicest grape, *in hope of success*, rather than be content with a poor mediocrity however certain. While some are exclusive partisans of one or the other, I take the *Concord* and *Iona* both, eating the latter, if I can, the former, if I must.

The *Catawba* "ripened" on 10th September; externally I mean: the tough, acid center never matures. One I have been fruiting under glass, is very palatable. And when we become expert at expressing the sweet juice and avoiding the acid, the *Catawba* is pleasant

enough: it is always vinous and sprightly; never insipid.

The *Diana* also ripened on the 10th. It has the toughest and thickest of skins; is larger than the *Delaware*, much paler in hue; a vigorous grower, hardy and healthy in summer and winter; but by no means of first rate quality. Its flavor is peculiar; very similar to that of the *Grizzly Frontignan*; and when I partake of either, I am reminded of my limited experience with that invaluable wine, the *Antimomial*.

Lincoln and *Alvy* and *Elsinburg* all ripened soon after; but they are not very important; though the first is one of the sweetest, richest of little grapes in the country, like *Herbemont*, but earlier and sweeter. But I must come to a close.

Isabella is everywhere, and it really-ripened on the 15th September. It never ripens, nor indeed turns its attention to fruiting, until you let it alone, and permit it to send out its ten inch joints in every direction, at pleasure. At its best estate, it is very flat and insipid, and it should retire.

Last and least ripens the *Herbemont* on the 1st of October, generally indeed nearer the 31st, filled with refreshing juice, not sweet, rather tart for many, but full of life and spirit, and truly grateful to the sick or weary. Bear with its tardiness, till all the other grapes have ripened and been forgotten, and then when the early frosts have gently fallen on its bunches and matured its juices, wash off the cobwebs, and in the enjoyment of these "little bags of wine" you will cherish no regrets at the absence of the earlier sorts.

The *Eumelan* and *Martha*, claimed to be the best of the black and white varieties respectively, are growing in my garden, but have not fruited yet. I name them, because I think them worthy of attention.

In conclusion, let me suggest to my *Freshman class*, that to ensure satisfaction in Grapiculture, they must lay the foundations of success broad and deep in the soil. They must expect to obtain no good crop of grapes where they would not feel sure of a large yield of corn. But success is reasonably assured to all intelligent seekers. A good, well prepared soil, with healthy, vigorous vines of choice varieties, will supply you plentifully with delightful fruit in due season.

Lutherville, Md., Dec., 1871.

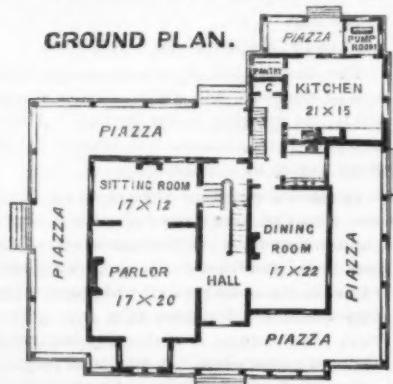


A DESIGN FOR A COUNTRY RESIDENCE.

BY HENRY BRAUNS, *Architect, Baltimore.*

This design was gotten up for a gentleman of this city, some three years ago, but was not executed, another design of a somewhat more costly character having been selected. The house was intended to be built of wood.

GROUND PLAN.

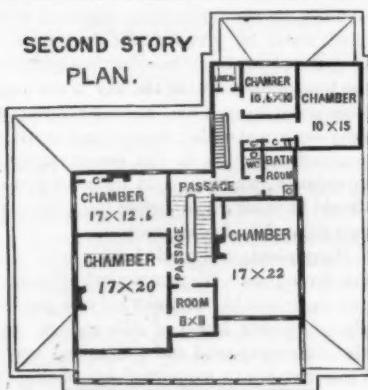


The ground floor plan shows an entrance hall 8 feet wide, with an easy flight of stairs continuing up to the third floor, with a cloak

and hat closet underneath. To the left of the hall is the parlor, 17 feet by 20 feet, with a square bay window on the front and double sliding doors, connecting with a sitting room or library, 17 feet by 12 feet, in the rear, so that the two rooms can, on occasions of entertainment, be thrown into one room. To the right of the hall is the dining room, 17 feet by 21 feet, with communicating door to the back stairway hall, kitchen and butler's pantry; the latter 10 feet by 8 feet, fitted up with all necessary closets and cupboards and provided with a sink, supplied with hot and cold water. In the rear of this is the kitchen, 21 feet by 15 feet, which is also provided with all the usual conveniences, viz: range, boiler, dresser, sink, table and sliding window to butler's pantry. In immediate connection with the kitchen is a provision pantry and a pump house. The latter prevents the necessity of any exposure to the inclemency of the weather in obtaining fresh water. In the rear of the back passage will be found a closet for brooms, &c.

A veranda, 10 feet wide, extends around the whole of the main building, affording ample shade at all times of the day, and making this design very suitable for Southern latitudes. A small porch is also provided in the rear of the kitchen.

SECOND STORY
PLAN.



The second floor plan shews three large chambers, a small child's, or dressing, room. bath-room, water closet, two servants' chambers, linen room and several closets.

On the third floor (plan not shown) there are three chambers almost as large as those below, and a small room in the tower.

The heights of the stories should be 12 feet, 11 feet, and 10 feet in the main building, and 10½ feet and 9 feet in the back building.

The cellar may be made either under the whole house or only under the back building. Provision is made for a supply of water from a tank in the roof over the bath-room.

The design of the exterior is, we think, neat and plain, but in good taste, the third story being constructed in the Mansard roof.

The cost of the structure would vary so much with the cost of materials and labor in the various sections of the country, that no accurate estimate can be given, but it is thought that it could be built in the neighborhood of Baltimore for about \$7500, architect's commission included, but probably the cost would be very much reduced if built in a section of the country where labor and materials are not so high as they are always found in and near large cities.

NAVEL ORANGES.—The Rural Carolinian urges the introduction into Florida of the navel orange, which is said to be a hybrid accidentally produced at Bahia, Brazil. Their average weight is about one pound, the skin a bright yellow and of moderate thickness; the meat crisp, juicy, sweet and of delicious flavor. Their great peculiarity is in the fact that they are seedless, and that which has within it a smaller orange.

THE FARMER.—A farmer more than most men, needs pluck, faith in himself and in nature, and, above all, patience. He must wait for results; and, while doing so, it is important that his surroundings should be as pleasant as he can afford to make them. A cheerful, healthy location is of more value than a fine house.

The Florist.

Floriculture--January, 1872.

By W. D. BRACKENRIDGE, Florist and Nurseryman,
Govans-town, Baltimore county, Md.

We again make our humblest bow before the shrine of Flora and Pomona, together with all that claims affinity thereto, entertaining, as we do, a kindred spirit with all who feel an interest in the advancement of the social and intellectual interests of their fellow-beings; and what is there, we would ask, better calculated to draw the affections of members of a family, long separated, back to the home of their childhood, than the pleasing recollection of haying there vied with each other as to who should be the first to present to their dear mamma, or beloved sister, the first violet of spring or rosebud of summer? And then, think of those luscious strawberries you used to pluck, without being compelled to whistle while performing that act, and assembling afterwards around the festive board to partake of these delicious morsels, smothered in cream and sugar! The mind will also revert to the contest between yourselves and the catbird, as to who should have the best share of the transparent black and white-heart cherries—the product of trees planted by your forefathers—while the blushing peaches of yore, and the red-cheeked apples of winter eve memory, will be constantly gliding past the mind's eye! Yes, we affirm that the recollection of these things, trifling as they may appear, make the home of our childhood pleasing to contemplate; and yet there are many homes of the present day that do not possess the attractions we have just alluded to.

An abode for civilized and intellectual man should embrace elements calculated to regale the senses—things that would not alone minister to his appetites, but have a tendency to draw out the refined and nobler traits of our nature, which in many individuals lie dormant, waiting only for some striking object to excite them into action. To effect this you have only to place before them something that is attractive beyond the ordinary standard of its kind. Now we will presume that, to a person born and brought up in a plain, square-built house, the style or plan dating from ancient days, located in an open lot or field, the walks leading to it overgrown with weeds,

the grass on the lawn—if any there be—cut once, or perhaps twice, during the summer, its surroundings destitute of trees and shrubs, not even a lilac bush large enough for a robin to hop under, not even a honeysuckle having breadth of top sufficient for a wren to build her nest; now if you can get such an individual to view with a calm, clear and unprejudiced eye some of our modern suburban cottages, or country residences, which cost no more in their construction than his own desolate and forbidding dwelling; the elegance of the designs now adopted, with their convenient, comfortable and cozy rooms for winter quarters, and broad verandah festooned with flowering vines, affording protection and shade from the rays of a scorching summer sun; and then you have those beautiful serpentine walks and carriage drives, as clean, smooth and level as a bowling alley, bounded by a velvety lawn with grass cut as short as the nap on a Brussels carpet, and studded with groups of umbrageous trees, rich clumps of shrubbery and ribboned beds of plants, varied alike in the colors of their leaves and flowers. There stands the house, nestled in a frame work of foliage and flowers, without a distracting object to mar its fair proportions, yet in some sequestered spot may be found, combined with a grotto or rock-work, the summer-house, where the honeysuckle and trumpet-flower love to embrace each other. These are the domestic scenes which delight the cultivated mind and eye, while such examples assist greatly in schooling the dwellers in waste places; and, to foster a taste in this direction, we shall from month to month give, in a detailed manner, such plain, practical hints as may facilitate the laying out and keeping of establishments of this kind, recommending, as we proceed, any improvement on the present style that may suggest itself. Furthermore, we shall also, in a general way, give such instructions as may guide the *novice* in the cultivation and keeping during the winter of bedding-out plants, as well as mixed collections, adapted to adorn the conservatory and greenhouse, such structures, in many instances, being now appended to residences of gentlemen of taste; but, on this latter head, we do not intend to go into detail the present month, simply submitting this month that, owing to the early severe frosts we have had, heavy firing and close covering must have been used to keep it out—therefore, in fine

weather, air should be freely admitted and no more water be given at the root than will keep the plants from drooping, not permitting the temperature during the day to rise higher than sixty degrees, and not sink lower than forty degrees at night; these extremes will suit a mixed collection in the conservatory and greenhouse, while the cold frame or plant pit should have air given before the temperature gets above fifty-five degrees.

Many plants will need shifting next month into large pots. We recommend all amateurs and gardeners to put under cover a good supply of various kinds of rich mellow earth; also, fine sharp sand and well-rotted manure. Flower stakes to support plants should now be provided. We find for this purpose the prunings of Privet hedges to be good for verbenas and such other slender plants. Dirty flower-pots should be washed, decayed leaves removed from the plants, and the conservatories and greenhouse kept as clean as a ladies' parlor.

During open weather it is desirable that the flower beds and borders be dug over, leaving the surface as rough as possible, so that frosts may mellow it and destroy the larvae of destructive insects. Should any new improvements be in contemplation, now is a good season to proceed in doing up the rough part of the work and collecting material, so that a good and speedy finish may be effected early in spring, for it is remembered that the month of March brings with it a thousand and one things necessary to be attended to; therefore, keep the head clear and the hand steady, so that you may be able to meet them promptly and accomplish all thoroughly.

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THE Canada thistle is making fearful headway in Bureau and La Salle counties, Illinois. There are about sixteen acres in Bureau, and La Salle has at least two thousand acres of them. So it is said, and allow us to suggest to all concerned, that in a few years, unless it is checked and exterminated, there will be two hundred thousand acres covered with it.

AN experienced cultivator says that on most soils barnyard manure once in three years, and ashes and plaster every year, will best meet the requirements of the hop.

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To Our Readers.—Introductory matters incidental to our first appearance, take up considerable space, which we make up by adding several pages of interesting reading. The size of the FARMER will be 32 pages, beside the cover, and advertising sheet.

The Vegetable Garden.

WINTER WORK.

HOT-BEDS.—Every garden of any considerable dimensions should have a hot-bed. They are very simply constructed, and aid in the production of vegetables month or two earlier than most of them can be otherwise furnished, and it is a matter of surprise that any farmer should be so unthoughtful of his own interest and the comfort of his family as to be without one. Every one has witnessed with what avidity all animals, in the spring, appear to relish the green food which is then furnished them, after having been obliged to subsist through a long and perhaps dreary winter upon the dry hay and fodder which have been their principal support. So is it with the human family, in country life, in many cases—the salt meat, the Irish potato and the inevitable cabbage making up, too often, the bulk of the main meal of the family, long after the towns-people are luxuriating in all the early products of the vegetable kingdom, supplied by the professional gardeners often before the country family garden has had the first row of peas, or cabbage, or other seed sown. The reason is that the market gardener, knowing how all-important it is to have his vegetables in the market as early as possible, to secure a good price and to meet the demand which is ever ready for him in early spring, brings into requisition, long before the frost is out of the ground, his forcing-house and hot-beds; and the question with him is not *how little* manure he can do with, but *how much* can he obtain to forward his plants when the proper time arrives for setting them out in the beds so richly prepared for them. And well is he repaid for his expense and painstaking.

Any one who has ever seen a hot-bed can secure one for himself with a very small outlay. Glass sash, which can be had at any of the door and sash factories in our cities, are necessary, although they are sometimes superseded by frames covered with oiled muslin, which are, however, by no means as effective. The sash are generally made about 3 feet in width by 6 in length, and, well painted and cared for, will last for years. Four sash, which will cover a bed of 6 by 12 feet, will be sufficient for the requirements of a medium-sized family, but it is well to have a separation

in the bed, to suit the requirements of different classes of plants as regards warmth and air. The frame for the beds is made of such size, that the sash will just cover it, the back about two feet high and the front sixteen or eighteen inches, the slope of the glass then being sufficient to throw off the rain and to catch the rays of the sun. The sides of the box-like frame should be sufficiently high to come above the thickness of the sash, as it slips up and down, to prevent the entry of cold air. At some point with a southern exposure there should be an excavation made in the ground about two and a half feet in depth, and this should be filled with the heating materials, provided thus: Take fresh horse manure, with one-third of its quantity of leaves added; put in a pile somewhat of a conical shape, beat down with a fork or spade, and every two or three days turn over and put up again as fermentation progresses, which will be indicated by its smoking. Do not allow the manure, in cold weather, to be too much scattered, as this will result in its freezing, and so stop the fermentation. In about a week this fermented material is to be put in the pit dug for it, the frame set on it, and five or six inches of fine rich soil filled in on top of the manure. The sashes are to be put on and kept closed until the first violent heating is over, when the bed is ready for the seed.

The time for sowing these will vary, of course, according to the latitude, but the general rule usually given is that seeds of the various plants are to be sown about six or eight weeks before the time they can be set out. In all latitudes advantage should be taken of the leisure time afforded in winter for preparing the frames, &c.

Lettuce, Cabbage and Radish seed may first be sown, and afterwards *Tomatoes, Egg Plants, Peppers and Cucumbers*. The latter division requires more heat than the other. On good days the frames should be opened to air the plants, and, so long as there is any probability of frost, they must be covered at night with straw mats, made for the purpose, or old carpets, or close wooden shutters.

To the novice in the use of hot-beds, it is a point of difficulty to determine when air should be given and when excluded. If the day is warm, sunny and calm, the frames may be freely opened, but if there is cold wind, although the sun is shining, they should be opened very slightly. The rule given by

Peter Henderson, the famous New York market gardener, is to admit air whenever the thermometer is 75 degrees, the amount depending on the wind and sun. He remarks that one hour's delay in raising the sashes will sometimes scorch the contents of a whole bed, and often one cold night, unlooked for because the preceding ones have been mild, will destroy the labors of a season.

Garden Beds of a stiff clayey character should be dug up, when practicable, and subjected to the influences of frost. The improvement in the texture of the soil will be evident the coming season.

Manure may be put out in convenient-sized piles, to be ready for use the coming spring. Keep such piles well together, and banked up. Manure scattered around, and continually freezing and thawing, loses half its virtues by the time it is needed for use.

Cold Frames should be aired every mild day.

Seeds should be assorted. Kinds required should be ordered from the seedsmen. Keep to the use of approved and tested varieties. Novelties so highly extolled in catalogues should be tried in a moderate way first. We commend to our readers' attention the offer of collections of seeds from dealers of the highest character, which we make for clubs for the *Farmer*. A couple of hours' labor will supply you with enough for your garden for next season.

The Apiary.

THE SAVING OF HONEY.

We recently received from a friend in a neighboring county of Maryland, a small lot of Honey, made by one of his tenants, a sample of a large quantity which he had secured and sold. We have never seen or tasted a better article of honey, and as we hope to see this branch of rural economy more widely diffused than is at present the case, we shall regularly devote a space in our columns to the dissemination of information devoted to the business. At a recent meeting, of bee-raisers, a gentlemen, well versed in the subject, made a startling remark as to the immense value of it, already, to the country, placing the amount at a figure we are almost afraid to repeat. But it is an article worthy of our encouragement

and extension, and we will endeavor to do our part in that connection.

A correspondent in Maryland writes to the American Bee Journal, giving his plan of saving and preserving honey, which we transfer to our pages:

This being the first season that extracted honey has been sold in this part of Maryland, I was very anxious that mine should be put in such shape as to establish a reputation, and secure me a good market in future, when I should have more of it to dispose of.

As soon as I extracted thirty pounds it was put in a tin can, set in a vessel of boiling water and kept at a boiling heat for twenty minutes. This not only drives off all the moisture which would have evaporated if the honey had been left in the hive until sealed, but causes any impurities, such as pieces of wax, etc., which may be in the honey to rise to the surface when they can be skimmed off—thus making it perfectly clear, but also expels all noxious substances. It is then poured into self sealing glass jars, and fastened up while hot.

The first dealer to whom I showed the honey asked me if I would "guarantee it not to candy or ferment." I told him I was very certain it would not do either while sealed up, but was not so certain about it if left open. To test the matter, I left two jars of it open in a kitchen all the summer, and the honey is as good now as it was when taken from the hive.

I think heating the honey is very important, and that it fully pays for the trouble, as the combs can be emptied as fast as the honey is stored without waiting for it to be sealed; thus saving much valuable time to the bees in the height of the season, and much trouble to yourself in not having to uncaps the combs. The honey after being heated is about the consistency of thick molasses and beautifully clear.

I have known several instances of persons eating this honey with impunity who could not taste ordinary new honey without being made sick by it. One of these persons was my assistant in preparing the honey. She had never in her life been able to eat new honey, and now she not only ate of this twice a day, but mixed it with water and drank it when she was heated and tired, without its having the slightest bad effect upon her.

That it is very popular and sells readily may be judged from the fact that I have, up to this time, sold over a hundred and thirty-five dollars worth of it, at about twenty-five cents per pound, from the seven hives on which I used the extractor, and usually in the hot weather it is impossible to sell honey at all in this neighborhood. I have not the least fear of overstocking the market with this honey, as it will pay well at fifteen cents per pound, and every one who has used it wants more of it. Besides it can be used profitably in making most excellent vinegar—which will serve to regulate prices.

The Poultry Yard.

Rules for Success in Raising Poultry.

Just now the cry comes up from many quarters of cholera, and fatal epidemics among the poultry, and we are treated *ad nauseum* to all sorts of specifics and preventives in the agricultural publications of the day, as well as harassed by all the old ladies of our acquaintance for a cure that will immediately not only put their cherished bipeds once more into erect port and saucy carriage, but act as a scarecrow for all time to come against any and all kinds of foes.

My wife often says to me: "Do you think you know more than mother, who was born in the country and lived there all her life?" and my triumphant reply is always: "How about the chickens, my dear?" "Oh, well," she answers, "even mother says you do manage to beat anybody she ever heard of in raising chickens, but then it is all your good fortune, after all!" From this you may judge, I think, I know something on the chicken question, and I propose, as far as able, with the kind permission of the *American Farmer*, to give some of my experiences and thoughts.

The first rule I ever took—mind, I say rule, I don't mean any temporary makeshift, helter-skelter, spasmodic way of doing things, but a regular daily operation, and sticking to it—the first rule for success in raising poultry, I find in these words: "Cleanliness is next to godliness," and, just as regularly and habitually as a man takes the dirt out of his own house, so ought he to take the dirt out of the chicken-house, if he means business. The second rule I found in the Bible, in the command to do everything "decently and in order." Now it may be I saw more, or differently, in these injunctions than most people, but the sum total of all my experience is just this: that, whether you raise poultry for fancy or for profit, in breed, meat or eggs, a liberal application of these rules cannot but result in success.

I propose, subsequently, giving my idea as to breeds—raising for either profit or fancy—and also on the various kinds of poultry-houses, manner of feed and kind, &c. I must be content with having, as a basis, laid down a granite foundation in my two golden rules. That there is money in poultry I fully expect to demonstrate, not only by my own experi-

ence, but by the figures of others. Figures! What have chickens to do with figures? Much, every way. How, without figures, can you tell anything satisfactorily? I keep a book, in which I set down the cost of my yard. I take stock every year—in February. Every hen in my yard has her number, and that number has a page in my book. Every egg each one lays is set down to her credit. Sometimes I get puzzled by finding two or more eggs in the same nest—then I have to watch for a day or two, until I spot each particular biddy. When she wants to set, I give her a dozen eggs, and charge them against her. In this way I keep tally for every egg laid, charging the house, of course, with all used, and crediting all sold outside. When the little chicks are hatched, the noisy matron receives credit for them, and her account is closed for that hatching. They are counted and watched over day by day. All the feed used is charged against them in the aggregate, and, by dividing this aggregate, I manage to fix the cost of each one as close as can be. Every chicken that dies, or turns up missing, is entered on the loss side, and all sold or eaten are credited, and in this way, at the end of the year, I can find out how much I have made, and how much each has cost me, and start fresh for the new year. This is what might be called system. It takes a great deal of trouble at first, but, when you once get habituated to it, the whole thing works like an old shoe. Only try it once, and, with a parting injunction, I say, if you make up your mind to do this,

STICK TO IT.

Hops without Poles.

A correspondent of the Country Gentleman writes as follows: Eight years experience has proved that we can pick our hops as cheaply and much neater by using baskets and picking from vines trained horizontally and low, without cutting any part of the vine, thus leaving it to mature and ripen the root for next year's use; when the hop yard is trained in this way, no hills die, but the plant is more vigorous each year as long as it is well taken care of, with one-fourth the manure that is required if the vines are cut. Many of our hop growers are not aware of the great outrage they are committing upon the first principles of vegetable physiology by severing such a mass of vines and foliage as is done in all cases where the hop is trained high and the vines cut to pick. I have seen yards of luxuriant growth and great yield picked early bleed so as not to produce the next year; the ground around the hill would be kept wet for days by the flow of sap from cutting.

The Fireside.

LET IT PASS.

Be not swift to take offence;
Let it pass!
Anger is a foe to sense;
Let it pass!
Brood not darkly o'er a wrong
Which will disappear ere long;
Rather sing this cheery song—
Let it pass!
Let it pass!
Strife corrodes the purest mind;
Let it pass!
As the unregarded wind,
Let it pass!
Any vulgar souls that live
May condemn without reprieve;
'Tis the noble who forgive.
Let it pass!
Let it pass!
Echo not an angry word;
Let it pass!
Think how often you have erred;
Let it pass!
Since our joys must pass away
Like the dewdrops on the way,
Wherefore should our sorrows stay?
Let them pass!
Let them pass!
If for good you've taken ill,
Let it pass!
Oh! be kind and gentle still;
Let it pass!
Time at last makes all things straight;
Let us not resent, but wait.
And our triumph shall be great;
Let it pass!
Let it pass!
Bid your anger to depart,
Let it pass!
Lay these homely words to heart,
Let it pass!
Follow not the giddy throng;
Better to be wronged than wrong;
Therefore sing this cheery song—
Let it pass!
Let it pass!

Yesterday, To-day and Forever.

[We find the following floating in our exchanges. We give it as an appropriate sermon for the present holiday season, when all should take opportunity of doing deeds of Charity and Love]:

TESTERDAY.

Gone, gone never to return—that which was once ours is ours no longer! It passed through time from eternity on one side into eternity on the other, like a meteor through space, but as it passed it recorded all the

thoughts, words and actions of mankind, whether good or evil, in a volume, and, when its mission was ended, placed the record upon the top of a pile of books of a similar character—the testimony of former yesterdays, which are awaiting the Day of Final Account.

TO-DAY.

It is here, the only portion of time to which we can lay claim; but it is swiftly passing, and will soon be numbered among the list of yesterdays—the name indiscriminately applied to all to-days that have fulfilled the mission upon which they were sent. To-day is the time in which we really live, for now events are actually transpiring; the past is gone, and faithfulness of memory is all upon which we can rely, while the future is dark and uncertain. Enjoy the present and turn it to the best advantage; never let chances of happiness slip away unimproved, for they are as golden strands woven in a web of life, which diffuse light and beauty through the whole fabric, and, when age has enfeebled us, we will have a bright past to look upon, which will reflect its brilliancy upon our declining years, thus lighting our path to the tomb.

FOREVER.

There is contained in this word something which inspires us with profound awe—something solemn, grand, inconceivable! How can we imagine a series of years merging into eternity and *never* ending? It is impossible. An impenetrable mental darkness which envelopes the future years of patient toil has failed to dispel.

Great minds have sounded the depths which at one time were deemed unfathomable. Reason and reflection have traced and brought to light many hidden laws of nature, but before this subject the most profound minds are powerless—all is darkness and uncertainty—but Hope persistently points through the gloom to a point in the distance which seems brighter than the rest, but which we are unable to see through any other than the eye of Faith. At first we see it but dimly, but, after gazing awhile, it takes upon itself a more definite form. It is a gate—a golden gate—which opens at times to receive poor way-worn pilgrims, emitting a gloriously bright light, while the sound of heavenly music comes floating down the highway of life, cheering the travellers thereon. As the eye of Faith grows stronger, we perceive an inscription, wrought in golden characters, which is "*Heaven*"; let this be our beacon and our watchword.

REMEDY FOR FRESH WOUNDS.—Bind up the cut or wound with fine pulverized earth, and renew the earth in the course of a few hours. This remedy is simple and within the reach of every one. Earth is a complete deodorizer, and acts like a charm on fresh wounds. So is white pine turpentine.

DOMESTIC RECIPES.

CURE FOR SCROFULA.—Many years ago we published the following recipe for this ugly disease. It was furnished by N. Longworth, Esq., the celebrated grape-grower and millionaire, who was so impressed with its great value to suffering humanity that he appealed to the editors of the country to repeat the publication quarterly, as "it may save many lives." Several cases of the disease having come to our knowledge, we gave a copy of the recipe to the families afflicted, which was used with the happiest effect. It is so simple, cheap and efficacious that we think we cannot render a more acceptable offering on the altar of humanity than to republish it in the first number of our renewed *American Farmer*, viz.:

"Put two ounces of aquafortis on a plate on which you have two copper cents. Let it remain from eighteen to twenty-four hours. Then add four ounces clear, strong vinegar. Put cents and all in a large-mouthed bottle, and keep it corked. Begin by putting four drops in a teaspoonful of rain-water, and apply it to the sore. Make the application three times a day, with a soft hair pencil or one made of soft rags. If *very painful*, put more water. As the sore heals, apply it weaker."

This recipe is extremely valuable, and every good Samaritan in a neighborhood should preserve a copy of it, so that, whenever they hear of a case of this terrible affliction, they may be prepared to furnish a remedy; and, independent of any higher reward, we will be satisfied with the fact being announced to the sufferer that the recipe was taken from the "*old Farmer*."

[A friend sends us the following seasonable recipes.—*Eds.*]:

HOG'S HEAD CHEESE.—Take off the ears and noses, and pick out the eyes. Lay the heads in salt and water over night; then wash and put them (with the ears and skins) on to boil. Boil till the bones come out easily. Season twenty pounds of meat with half a pound of salt, three heaping tablespoonfuls of sage, three of pepper, and two of thyme; for more or less meat, season accordingly. After seasoning chop fine, pour the meat in milk-pans, pack closely, cover with paper greased with melted lard, and, lastly, cover with boards or plates. Hog's head cheese may be eaten cold, with or without vinegar, or fried as sausage.

SAUSAGE MEAT.—Take all the clippings, a portion of fat, liver and heart. Chop fine, previous to seasoning the number of pounds as advised for hog's head cheese, which recipe is also a good precedent as regards seasoning and packing. The middlings, if very fat, pay best when the lean parts are converted into sausage meat, the fat into lard, and the skins to increase the bulk of hog's head cheese. Previous to packing, fry a small portion of the meat to test the seasoning. If not satisfactory, it can be altered by adding more meat or increasing a portion of the seasoning.

PIGS' FEET AND SOUSE.—Mrs. Lee, in her Domestic Cookery Book, says pigs' feet should be well cleaned by dipping them in scalding water and scraping off the hairs (also remove the hoofs); leave them in weak salt and water two days, changing it every day.

To Make Souse.—Boil the feet till the bones come out easily, and pick out all the large bones; pack them in stone pans, with sage, pepper and salt to taste, and cover with vinegar. They may be eaten cold, with vinegar, or dipped in flour and fried.

VESSELS FOR SALTING MEAT should be well cleaned after the meat is hung up, and set on boards in the cellar. If they do not smell sweet, they should be washed and soaked before meat is packed in them again. You should see that the hoops are sound, and have covers to fit the vessels.

PORK AND BEANS.—Pick out from a quart of white beans all that are imperfect; soak them in water over night, which will more than double the bulk; boil two hours, with plenty of water; at same time boil two or three pounds of fat pork till done; pour the beans in a shallow earthen pan; slice the skin of the pork and place it (flesh side down) in the centre of the beans; then coat the pork and beans with best molasses or syrup. Bake till brown. A substantial dinner for four to six persons, and costing about fifty cents. I ask my friends down East if I am right?

A FAMOUS SCOTCH DISH.—Eaten once a year by the Scotch, in commemoration of some important event: Cut up fresh codfish in pieces four inches square; lay them on the bottom of a pan, then a layer of cut potatoes, and so continue alternate layers, cooking enough for the family. An ordinary-sized

onion, sliced, and a lump of fresh butter, ought to be placed between each layer. Finish with a layer of buttered crackers or toasted stale bread, cover with water, and stew about twenty minutes; season with salt.

MRS. MINGE, ALA.

FOR SUMMER COMPLAINTS.—Grow a few *Bene* plants; immerse daily a leaf in a tumbler of water. A mucilaginous or oily substance will be produced, without taste, smell or color; let the child drink it, when so inclined. To excite thirst, let the child suck what the Dutch call spritzell, or salted bread. A certain and simple cure. If the child refuses to suck, dip the spritzell in molasses.

How to have early Tomatoes.

To produce the earliest ripening tomatoes, just before frost, take cuttings from the old plants and keep them in sand, or in sharp, sandy soil during the winter in a cool, dry cellar. The cuttings should be made from the base of the old plants just above the main roots, taking at the base end of each cutting about four inches of the stem, from which new fibres or rootlets have started, and then making the cutting so that it will have two or more leaf buds above the rooted end. Usually the cutting will be about ten to twelve inches long. It should, as soon as taken off from the main or old plant, have its fibrous end at once planted in a pot or box of sand or sharp, sandy loam, given a good watering and then set away in cool place, say in a dry cellar or under the stage of a green house. These cuttings started into growth in the latter end of February, by placing them in the south windows of a warmly kept living room or placed on the shelves of the greenhouse or in a hotbed frame, will give fruit two to three weeks earlier than the best plants that can possibly be grown from seed. Again, he who wishes to originate a new, early variety by fertilizing the *Alger* with the early red, will probably produce an early and extra large, smooth variety.—*Elliott, in Cleveland Herald.*

ADVERTISEMENTS.—The advertising sheet is one of the most valuable departments of our journal, and it is to be presumed that in every family where the *Farmer and Rural* is received, it will be scanned and commented on with much interest. We cannot particularize, but take space enough to refer lovers of fine animals to the sale of imported stock advertised by Messrs. Sullivan & Son, expected to take place early in January.

BALTIMORE MARKETS, Dec. 19.

Breadstuffs.—The market quiet but firm; Western Super Flour, sales at Corn Exchange, \$6 12 $\frac{1}{2}$ per bbl.; Howard st. extra, \$6 50; fancy Western family, \$8 50; City Mills Rio brands, \$7 50 $\frac{1}{2}$ to \$7 75; City Mills super, \$8 50 $\frac{1}{2}$ to \$9 25; do standard extra, \$6 50 $\frac{1}{2}$ to \$7 75; Ohio and Indiana super, \$8 75 $\frac{1}{2}$ to \$9 25; common to fair extra, \$6 50 $\frac{1}{2}$ to \$7 75; good to choice do., \$7 75 $\frac{1}{2}$; do. family, \$7 50 $\frac{1}{2}$ to \$8 50. City fancy bounds range at \$9 50 to \$10 50. Rye Flour, \$4 75 $\frac{1}{2}$ to \$5 25. Fine Flour, \$4 50 $\frac{1}{2}$. Corn Meal, City Mills, \$3 75.

Grain.—Rye, fair to prime, 30 to 100 cts. Oats, 52 to 53c. Wheat steady; supplies light; sales Pa. prime at 15 $\frac{1}{2}$ c.; do, very choice, 16 $\frac{1}{2}$ c.; prime Western, 15 $\frac{1}{2}$ c.; good to prime Southern, 16 $\frac{1}{2}$ c. to 17c. Corn—White firm; sales at 62 to 68c., the latter for prime dry parcels; yellow, 68 to 70c.; Western mixed 68 to 70c. The receipts of Corn on Monday were the largest ever known at the Corn Exchange. Price after 1st will probably improve.

Molasses.—N. O. new crop, 60 to 65 cts.; Cuba claved, 25 to 30 cts.; do. Muscovado, 25 to 35 cts.; Porto Rico, 30 to 45 cts.; English Island, 30 to 35 cts. per gallon.

Cotton.—Baltimore has become a great Cotton market. We quote Upland 19 $\frac{1}{2}$ to 20 $\frac{1}{2}$ c. for middling; 19 $\frac{1}{2}$ to 20 $\frac{1}{2}$ c. for low middling; 18 $\frac{1}{2}$ to 19 $\frac{1}{2}$ c. for good ordinary; and 16 $\frac{1}{2}$ c. for low ordinary.

Rice.—8 $\frac{1}{2}$ to 9 $\frac{1}{2}$ c. for fair to prime; supply light.

Salt.—Liverpool, \$1 45 to \$1 50 for Ground Alum, and \$2 30 to \$2 40 per sack for fine. Turks Island dull at 40 to 45 cts.

Seed.—Cleaver, nominal, \$7 to \$7 25 per bushel; Timothy, \$2 25 to 3 50, and Flax \$1 80—dull. The quantity of Clover seed raised last season was unusually large, it is believed.

Whiskey.—Western and City, iron bound, 90 to 97 cents per gallon.

[Hereafter this department will be enlarged, and the prices of Cattle, Tobacco, and other staple articles, will be regularly reported.]

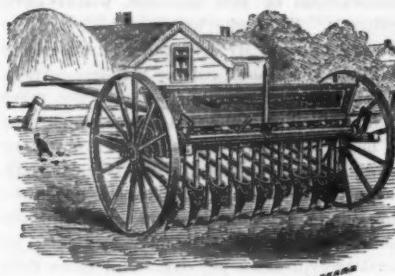
ADVERTISEMENTS.

- R. H. Allen & Co.*—Agricultural Implements.
- R. J. Baker & Co.*—Chemicals for making Fertilizers.
- W. A. Bryant*—Earth Closets.
- W. D. Brackenridge*—Fruit and Ornamental Trees, &c.
- S. T. C. Brown*—Patterson Devons and Berkshire Pigs.
- Dr. J. B. Coleman*—Veterinary Surgeon and Farrier.
- E. J. Evans & Co.*—Seeds, Fruits and Ornament' Trees, &c.
- C. J. Fay*—Waterproof Felting.
- A. B. Furquhar*—Plows, Agricultural Implements, &c.
- Florence Sewing Machine Co.*—Florence Sew'g Machines
- Jas. W. Geddes*—Galvanized Cornices, Metal Roofg, &c.
- J. A. Hamilton*—Blickford Knitting Machine.
- Higgins, Rybold & Co.*—“Persicator” Fertilizer.
- Joshua Horner, Jr.*—“Tobacco Sustain” Fertilizer.
- “ “ “ Super Phosphate and Bone Dust.
- L. H. Lee & Bro.*—Champion Reaper and Mower.
- A. G. Mott*—Alta Harvester and Agricul. Implements.
- John Mayhew*—Agricultural Implements.
- S. H. Martin*—Garden and Flower Seeds.
- Navassa Phosphate Co.*—Navassa Guano, &c.
- Charles L. Oudestryus*—Potash Fertilizing Materials.
- Pools & Hunt*—St'm Boilers, Engines & Tur. W'r Whl's.
- J. H. Parks*—Engraver on Wood.
- J. F. Rybold*—Pure South Down Sheep.
- R. Sinclair & Co.*—Agricultural Implements.
- Sam'l. Seward & Son*—Farmers and Planters' Agency.
- “ “ “ Farm for sale or exchange.
- P. H. Sullivan & Son*—Public Sale of Imported Stock.
- J. M. Thorburn & Co.*—Garden Seeds.
- “ “ Late Rose Potatoes.
- “ “ Wholesale Price Lists.
- Robt. Turner & Son*—Guano, Bone Dust, Field Seed, &c.
- Walton, Whann & Co.*—Raw Bone Super Phosphates.
- “ “ “ Bone Meal and Bone Dust.
- John Wilkinson*—Landscape Gardener, &c.
- T. J. Wooldridge*—Pure Essex Pigs, Cochin Chickens, &c.

Bickford & Huffman's

COMBINED

SEED DRILL.



A "Force Feed" Grain Drill.

This illustration portrays one of the most perfect machines for sowing field grains, grass seeds, and fine manures, that is anywhere used or manufactured. It is the perfected work of a firm, which was one of the pioneers in the business of constructing grain drills—the result of more than thirty years experience, and of the thought and labor of many inventors. Starting from the correct principle of a regulated "force feed" for carrying the grain evenly and in the desired quantities, to the earth, it has built up and clustered around it, in simple and harmonious form, all needed devices to overcome the difficulties in the way of operating the machine, and to render its work in every respect easy and complete.

"And what is a 'force feed' drill?" queries the reader. It is one which by its mechanism, takes positive control of the grain, lifting it at the moment when motion is given, and carrying it irresistably forward to the point where it is emptied into the grain funnels or conducting tubes—the latest and best principle employed to secure an unerringly correct distribution of seed by a drill. On March 19th, 1867, letters patent were issued

to LYMAN BICKFORD, of the firm of BICKFORD & HUFFMAN, Macedon, N. Y., the manufacturers of "The Farmer's Favorite," securing to him the principle of a continuous "force feed" distributor, with two sets of runs or "feeds," formed one upon either vertical face of a distributing wheel rotating in an iron shell, a hub upon either side of the wheel, fitting in its respective section of the shell, forming the axis of its motion, and insuring it against such an amount of wear as should ever cause it to vary in its distribution of seed. A continuous flange on this wheel receives the grain from the seed box of the drill, and carries it to the point of discharge without crushing it in the slightest degree. There is a distributing flange on either side of the wheel: one for small, and the other for coarse grains, and corn and peas are sown equally as well as the finer seeds.

In the secondary, yet very important features of a perfect drill, the "Farmer's Favorite" is also superior. The engraving shows how the tubes are lifted from the ground by drawing down the lever which winds the chains attached to the tubes around the roller, and elevates the latter itself by causing it to travel up a rack. The movement of raising and lowering the tubes also throws it in and out of gear. There is also a device by which the tubes can be shifted easily while the drill is in motion, from a single line to a double one, thus enabling it to pass readily a spot of lumpy or stony ground. The spring tube is an improvement by which the tooth can pass an obstacle and is returned, and held to its position, without having to replace a broken wooden pin.

The attachment for sowing fertilizers with the seed, is one of the most practical features of the drill. Fifteen years' experience has proved its great adaptation to its work, and it sows guano or other manures, either in a moist or dry condition. The grass seeder scatters the seed broadcast and evenly just behind the grain tubes, at the rate of from two quarts to one-half bushel per acre.

Thus the operations of sowing fertilizers, grain and grass seed, are all performed by one machine, which, in design, material and workmanship, will satisfy the most critical and practical farmer.

A REAPING MACHINE

PUT TO

A New Test.

We copy below, from the Lexington (Ky.) *Gazette*, an account of Hemp-Cutting by the **CHAMPION COMBINED REAPER AND MOWER**.

Those familiar with Hemp-Growing can fully appreciate the qualities necessary and the great increase of driving power to the knife (over that required in a Reaper and Mower, to cut Grain and Grass,) in order to force the knife through the thick growth, tough, hard stalks of Hemp.

This is one of the secrets of the great and rapidly-increasing popularity of the CHAMPION REAPERS AND MOWERS for Grain and Grass Harvesting.

It not only has the power to cut the heaviest and worst-conditioned Grain and Grass without choking or strain to the machine, but has the reserve power to reap Hemp successfully.

At this day no enterprising or successful farmer is disposed nor can afford to buy any but the very best and latest improved Agricultural implements. Reaping and Mowing Machines are the most expensive implements required on the farm; it is, therefore, important so large an amount of money should be invested *only* in the *best* machine. The CHAMPION REAPER AND MOWER is the only machine now made that has power to cut Hemp. This fact, coupled with other established points of excellence, should lead every farmer to turn a deaf ear to the plausible statements of parties interested in other machines until he has for himself seen and carefully examined the CHAMPION:

The Champion Machine as a Hemp-Cutter.

It is not as a reaper and mower that we would refer to the Champion at this time, for these are too familiar to the public to need

any commendation at our hands, but to its qualities as a hemp-cutter, in which it has proved itself unequalled by any machine ever offered to the farmers of Kentucky. Scores of our largest hemp-growers have been relieved from serious embarrassment the present season by using the Champion, for the negroes had determined to extort four dollars per acre for cutting hemp, and, except for the introduction of this machine, would have gotten it. We spoke, in a recent issue of the *Gazette*, of what Mr. Alexander H. Brand did with the Champion, cutting fifty-five acres in eight days, and at an expense of not more than half-a-dollar per acre—since which time it has been used by others with even more satisfaction. Mr. Elijah Bryan, under very favorable circumstances, last week cut three acres and a fraction less than a half in three hours, indicating that the machine can cut at least twelve acres per day. Not more than two hands are required to operate the machine at its highest cutting capacity, nor is the labor so severe as men usually perform in a harvest field. The machine is built of the best material, carefully selected by the manufacturers, and is fully guaranteed in all its parts to stand any amount of ordinary usage and wear. The machine combines a first-class reaper, mower and hemp-cutter, all in one, and, for the amount of work it is capable of doing, has no rival worthy the name that we are aware of. The best testimony to the value of the Champion is a reference to those who have used it in any capacity, and we have conversed with a number who have cut their entire crop of hemp with it this season, and they are charmed with its performance and the great saving it has wrought. Besides Messrs. Brand and Bryan, we have heard Messrs. John Robb, Oliver Farra, James Farra, W. T. Hearne, and many others of our largest hemp-growers, speak in the most complimentary terms of the Champion. They all feel under a personal obligation to the manufacturers of this machine for emancipating them from dependence on the worthless negroes who have heretofore been their only reliance. It will stimulate the raising of hemp in Kentucky to a higher point than it has ever before reached. All that is required now is for the farmers to get the stumps out of their fields, and hemp-raising will be little more expensive, and far more certain and satisfactory, than barley or wheat.

ADVERTISING SHEET.

AUCTION SALE

OF

Choice Imported Stock,

SELECTED WITH GREAT CARE BY

M R . P . H . F O W L E R ,

UP

WATFORD, HERTS, ENGLAND.

We will sell, without reserve, per order of Messrs. JOS. O. FOARD & CO., Consignees, at Public Auction, to the highest bidder for cash, on

A Day to be Hereafter Announced,

Beginning at 11 o'clock, at

Kearney's Stables, Baltimore, Md.,

The following described

Cattle, Sheep, Ponies and Dogs,

TO ARRIVE FROM LIVERPOOL,

Per ship Annapolis, and shipped by that large and eminently successful Exporter,

Mr. P. H. Fowler, of Watford, England,

TO WIT:

SEVENTEEN JERSEY and EIGHT GUERNSEY COWS and HEIFERS, of great beauty and unsurpassed quality for dairy purposes.

ONE MAGNIFICENT JERSEY BULL.

THIRTEEN SHROPSHIRE DOWN EWES and RAMS—splendid specimens of this valuable and costly breed.

TWELVE well-gaited and handsome SHETLAND and MOUNTAIN-BRED PONIES.

SIXTEEN highly-bred DOGS, for the FIELD, FARM and FIREPLACE, in all their varied and attractive characteristics, consisting of

THREE well-broken and handsome RETRIEVERS.

FIVE well-broken COLLIES (the Shepherd's friend), and

EIGHT SCOTCH and SKYE TERRIERS, of the purest strain.

Purchasers of the Jersey Cattle will be furnished with a certificate signed by the breeder of each animal, and attested by the U. S. Consular Agent, Jersey.

Catalogues now ready, and furnished on application to

P. H. SULLIVAN & SON, Auctioneers,
jan-11 P. O. BOX 1101, Baltimore, Md.

The vessel is hourly expected at Baltimore. Those requesting it will be informed, by letter, of the day of sale by the Editors of the *American Farmer*.

A. B. FARQUHAR,

Proprietor of Pennsylvania Agricultural Works,
Manufacturer of Improved [YORK, PENN'A.]

Polished Steel, SOLID STEEL SWEEPS,

DICKSON SWEEPS, and SCRAPERS.

STEEL PLOWS, SHOVEL

PLOW BLADES,

CULTIVATORS,

HORSE-POWERS, THRESH-

ING MACHINES, &c., &c.

Send for Illustrated Catalogue.

jan 6t



Water-Proof Felting,

(no tar used.)

For Outside of Buildings,

AND

INSIDE Instead of PLASTER.

C. J. FAY, Patentee,

jan-3t Camden, New Jersey.

GUANO! GUANO!!

We have constantly on hand

A No. 1 Peruvian, and

A No. 1 Guanape Guano,

Which we offer for sale, in lots to suit purchasers, at Agents' Warehouse at Point, or up town.

We would also call the attention of Farmers and Planters to

CURRIE'S BONE FLOUR,

Which, by analysis, is the best BONE offered for sale in this market.

ROBT. TURNER & SON,

43 South Frederick street, Baltimore.

FIELD SEED of best quality always on hand jan-1f

SPECIAL NOTICE.



The subscriber, Manufacturer and Dealer in all kinds of AGRICULTURAL MACHINERY—
TURKISH MACHINERY, TAKAH AND PLANTATION MACHINERY—
he also makes a specialty of PLOWS of all the various varieties for the
Southern Trade—having established himself in
WAREHOUSE NOS. 40 and 42, Light st., Baltimore,
Respectfully invites all his old customers and others interested in
such Wares to give him a call and examine his stock, which will be
COMPLETE AND WELL MADE, AND SOLD AT AS MODERATE
RATES, as any other like establishment in the country. Address
JOHN MAYHER,

40 and 42 Light street, Baltimore.

jan-3t

T. J. WOOLDRIDGE,

IMPORTER AND BREEDER OF

Pure Essex Pigs,

Buff Cochin and

Game Chickens.

French Hay P. O., Hanover co., Va. jan-1f

GALVANIZED IRON CORNICES.

JAMES W. GEDDES,

TIN, GALVANIZED IRON,

COPPER, LEAD, ZINC

AND IRON ROOFING,

SPOUTS, GUTTERS, &c.

No. 67 North street (above Saratoga street),

jan-1f BALTIMORE.

J. H. PARKS,

Engraver on Wood,

Marble Building (Third Floor, Front Room),

S. E. Cor. Charles and Fayette sts.,

jan-1f BALTIMORE.

THE AMERICAN FARMER

Edward J. Evans & Co. Nurserymen and Seedsmen,

YORK, PENNA.

Offer for the coming season an unusually fine assortm't of

Garden, Field, and Flower Seeds,

embracing all the leading standard varieties, with the most desirable of the novelties of the season; also a very complete stock of well grown, thrifty,

STANDARD AND DWARF FRUIT TREES,

ORNAMENTAL TREES AND SHRUBS,

EVERGREENS, SMALL FRUITS,

RHUBARD, ASPARAGUS,

HEDGE PLANTS, &c., &c.

Descriptive priced catalogues mailed to applicants. 11

TREES AND PLANTS.

Rosebank Nurseries

Govanstown, Balto. co., Md.

We invite the attention of Planters and Amateur Cultivators, to our complete stock of the following:

PEARS, Standard and Dwarf.

APPLES, Standard and Dwarf.

CHERRIES, Standard and Dwarf.

PEACHES, PLUMS, and GRAPE VINES, together with other SMALL FRUITS of popular kinds.

ORNAMENTAL TREES, EVERGREENS and SHRUBS, with ROSES in great variety. A large stock of choice GERANIUMS, VERBENAS, and other bedding out plants.

75 to 100 Thousand two and three year old OSAGE ORANGE HEDGE PLANTS.

Orders by mail promptly attended to.

Catalogues forwarded on application.

Jan-1f

W. D. BRACKENRIDGE.

J. WILKINSON,

Landscape Gardener, Rural Architect and Draining and Irrigating Engineer.

Office, N. W. cor. Charles and Baltimore streets,
BALTIMORE, MD.

Mr. W. desires to call the attention of the public to his Patent Horse Stall, Improved Cattle Stall, his original mode of Ventilating buildings, of Framing Farm Barns of any dimensions, in which he uses no piece of timber or lumber of greater dimensions than a board 1 inch in thickness, 12 inches in width, and 16 feet in length, and dispenses with all girders and ceiling beams above the principal floor; also to his Pitching Apparatus for Hay, Grain and Fodder, by Horse Power. Any amount of reference given if desired.

Send for Circular.

Jan-1f

FRESH GARDEN SEEDS.

Our annual descriptive priced Catalogue of Garden, Field and Tree Seeds is ready for mailing free.

J. M. THORBURN & CO.,

Jan-2t

15 John st., New York.

Horse, Cattle & Dog Infirmary

AND

Horse Shoeing Establishment.

By Dr. J. B. COLEMAN, M. R. C. V. S.

Office 116, Infirmary 133, and Shoeing

Forge 214 German street,

Baltimore, Md.

He has made specialties of his profession of the Lung Plague, or contagious Pleuro Pneumonia in Cattle and Lamenesses in the Horse from whatever cause; but particularly those arising from, or concomitant with foot contraction, e. g. Corns, Quarter Crack, Ring Bone, Ankles and Knees Cuck, Chest Founder, (so-called) Sweaty, &c., which generally arise from injudicious shoeing, and are cured by the proper treatment of the distorted foot.

The best mode of treatment of contraction of the hoof, known to the profession, is called the

Improved Dunbar System,

by which some of the most valuable animals in this region have been thoroughly cured.

By permission, the names of a few of Dr. C's patrons in Baltimore are given as reference.

J. L. Johnston, Esq. Banker.

Henry Johnston, Esq. " "

W. H. Graham, Esq. " "

Wm. Devries, Esq. Merchant.

Jesse Tyson, Esq.

J. Golibart, Esq. Canton Steam Saw Mill.

Edward Clabaugh, Esq. South street.

E. L. Mayer, Esq. North Howard street.

G. O. Wilson, Esq. Lexington street.

G. Delphy, Esq. Linden Ave. Livery Stables.

ADVERTISING SHEET.

Diamond State Bone Meal. DIAMOND STATE GROUND BONE.

The above Superior articles of Bone Meal and Ground Bone are for sale at each of our stores.

Walton, Whann & Co., Manufs., Wilmington, Del.

STORES: { 57 SOUTH CALVERT STREET, BALTIMORE, MD.
28 S. Wharves, Philadelphia, Pennsylvania.
203 W. Front street, Wilmington, Delaware.

WHANN'S RAW BONE SUPER PHOSPHATE for sale at above stores.

Jan-1t

SPECIALTIES.

Cahoon's Broadcast Seed Sower, The Philadelphia Lawn Mower,
Allen's New Cultivator, Cylinder Plows,
Grant's Patent Fan Mill, The Blanchard Churn.

Send stamp for Circular of any of above. We have the largest general assortment of AGRICULTURAL IMPLEMENTS to be found in the country.

R. H. ALLEN & CO.,

Jan 3t 189 AND 191 WATER STREET, NEW YORK.

Patterson Devons. 

As owner of the justly celebrated Devon Herd of the late

GEORGE PATTERSON, deceased,

I am now breeding and have for sale young Devons from eight months to two years and a half old. Prices from seventy-five to one hundred and twenty-five dollars each, according to age, choice, &c. Also,

BERKSHIRE PIGS,

from ten to twenty dollars each, according to age.

For further information apply to SAM'L SANDS & SON, American Farmer office, or address,

S. T. C. BROWN,
Sykesville, Carroll co., Md.

Jan-4t THORBURN'S
LATE ROSE POTATOES.

The finest and most productive winter sort in cultivation. This is the Potato that attracted so much attention at the New York State Fair. Descriptive Circulars and price according to quantity, on application to

J. M. THORBURN & CO.,
15 JOHN ST., NEW YORK.

"The Great Need of the Soil is Potash."

POTASH FERTILIZING MATERIALS.—125 tons German SULPHATE POTASH AND MAGNESIA (called Kainit), calcined and ground; can be used alone or mixed with Bone Dust, Stable Manure or any manufactured Guano or Phosphate; 50,000 tons used annually in Europe; contains no sand or dirt. For sale by CHARLES L. OUDESLYS,

jan 3t No. 67 Exchange Place.

R. J. BAKER & CO.,

IMPORTERS AND DEALERS IN

Oil Vitriol, Chemicals, Bone, German Potash Salts, Sulphate Ammonia, &c.,

FOR MAKING
SUPERPHOSPHATES & FERTILIZERS,
36 and 38 South Charles Street,
BALTIMORE.

Farm for Rent or Sale.

For Rent.—A commodious plain DWELLING, with stable and outhouses, suitable for family's summer residence, or other purpose; with 5 or 6 acres of ground well set in grass; has also a vegetable garden, fruit trees, &c. Situated 15 miles on the York turnpike, Baltimore county, Md.; five railroad stations within one to three miles. It will be rented for the summer, or by the year; possession at once.

Or, FOR SALE, OR EXCHANGE

FOR CITY PROPERTY,

the FARM of which the above is a part; 150 acres, about 25 in wood; well watered, and about one-half now in clover and timothy; land very kind; situation high, and as healthy as any part of the world; will suit admirably for a dairy farmer; or for a gentleman's country residence; has large stone barn and stable; a variety of young fruit.

No more desirable property can be had near Baltimore, at the same price. Possession can be given at once, if applied for before the dwelling is rented. It has a small tenant house on it.

For further particulars, apply to

SAM'L SANDS & SON,
at American Farmer Office.

jan 1-t



FLORENCE,
THE HOUSEHOLD WORD IN
THOUSANDS OF FAMILIES
FOR THAT BEST FRIEND

THE FLORENCE SEWING MACHINE!

It is the only machine that can sew in more than one direction, having a reversible feed.

It fastens the end of a seam better and quicker than a seamstress can.

We guarantee the "FLORENCE" will sew everything needed in a family, from the heaviest to the lightest fabric.

It will WEAR TWICE AS LONG as any other Shuttle Machine.

Price Circular will be sent free on application.

Florence Sewing Machine Co.,
49 North Charles St., Baltimore, Md.

LIBERAL TERMS OFFERED TO ACTIVE AGENTS.

jan-9t



Perfection in work and simplicity of construction have been attained in this Machine. It knits both circular and flat web with perfect selvage edge, making a perfect hand-stitch. It narrows and widens, knitting heels and toes of stockings to perfection, with ribbed or plain stitch, and is a Crocheting as well as Knitting Machine. It makes all the intricate fancy stitches of the crocheting-needle better than hand-work. It is so simple that a child can operate it, and the rapidity of its work is truly wonderful—20,000 stitches per minute.

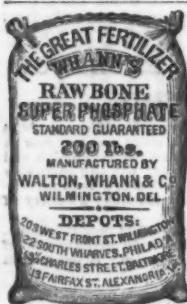
This Machine has carried the FIRST PRIZE at the Maryland State Fair, Maryland Institute, and Virginia State Fair, this Fall, and was the principal attraction at all of them. They are more valuable in the family than the Sewing Machine. Price, \$25 and \$35. Send for Circulars. Agents wanted in every part of Maryland. Liberal terms. Address

J. A. HAMILTON,

General Agent for Maryland,

47 North Charles street,
BALTIMORE.

jan-1f



Whann's Raw Bone Super Phosphate,

The Great Fertilizer for all Crops.

Worn out or poor land, manured with the above Super Phosphate, will produce large crops of

WHEAT, RYE, BARLEY, OATS, CORN, COTTON, TOBACCO, and all kinds of VEGETABLES, CLOVER and GRASS.

WALTON, WHANN & CO., Manufacturers, Wilmington, Del.

Stores: { 57 S. CALVERT STREET, BALTIMORE, MD.
28 South Wharves, Philadelphia, Pa.
103 West Front st., Wilmington, Delaware.

Diamond State Bone Meal and Diamond State Ground Bone for sale at above stores.

11

ADVERTISING SHEET.

"H. R. & CO."

It is the privilege of the manufacturers to announce that

"THE PERSICATOR,"

DR. STEWART'S SUBSTITUTE FOR WOOD ASHES,

Has proved of great value to the Farmers of Maryland. For two years it has been used with singular success upon the clay lands of Kent, "making them as sure for Corn as for Wheat," and confirming the Delaware experience.

Well known Tobacco Planters of Virginia pronounce it
SUPERIOR TO SUPER PHOSPHATES AND SPECIAL TOBACCO
FERTILIZERS,

And are recommending it to the Agricultural Societies.

For Fruit Trees its value has been proved for eight years.

We solicit the correspondence of Farmers' Clubs and all interested in such an article—and will afford them such references as will enable them to get the opinion of practical farmers who have tested it.

HIGGINS, REYBOLD & CO.,

*Jan-1t

DELAWARE CITY, DELAWARE.

NAVASSA PHOSPHATE COMPANY.

Crude and Fine Ground Navassa Guano,

The only Reliable Source of Rich Bone-Phosphate of Lime;

Azotin and Nitrogenized Compound (Concentrated Ammoniates,) FOR

SUPER-PHOSPHATE MANUFACTURERS,

19 CLIFF STREET, New York.

Jan-3t

20 & 22 SOUTH ST., Baltimore.

EARTH



CLOSETS.

A completely successful substitute for the Water Closets, in town or country, and must entirely do away with the common Privy. Cheap; no liability to freeze or get out of order, and PREVENTS ALL SMELL. Besides, they convert the waste of our bodies into a highly valuable Fertilizer.

COMMODES, which may be used in any room, and FIXTURES for Closets or Privies for sale. For Circulars, &c., address

jan-ff W. A. BRYANT, Agent, No. 3 Holliday street, Baltimore, Md.

THE AMERICAN FARMER

SAML. SANDS & SON'S FARMERS AND PLANTERS' AGENCY

With the recommencement of our connection with our old journals, we have determined also to renew our **AGENCY** for the supply of everything required by Farmers and Planters residing at a distance from Baltimore, who may not have Commission Merchants or Factors in this city.

Our long experience, and, we flatter ourselves, our judgment and discretion, in this business, will enable us to render good service to those who may wish to obtain our aid.

We will purchase and have carefully shipped, by whatever mode of transportation may be designated :

FERTILIZERS of every description sold in this market—and there is, probably, no other city in the Union which offers better facilities for this purpose. We will buy, and deliver from the Peruvian Agents' Warehouses, whenever the order is sufficiently large to warrant it,

PERUVIAN GUANO,

Of the Chincha Island and Guanape brands; the various **PHOSPHATIC GUANOS** imported into this port; **BONE DUST** from the best manufacturers of this vicinity, or the cheaper kinds from a distance, as may be ordered by the purchaser;

Land Plaster, Oil Vitriol, and all Chemicals Required

In the manufacture of **HOME MANURES** or **SUPERPHOSPHATES**, from the most reliable factories.

FRUIT and **ORNAMENTAL TREES, SHRUBBERY, Field, Garden and Flower SEEDS.**

All kinds of **AGRICULTURAL IMPLEMENTS** and **MACHINERY** at manufacturers' prices. Likewise,

Cattle, Horses, Sheep, Pigs, Poultry, &c.,

Of the improved breeds. In this vicinity, in some particular kinds of stock, a better selection can be made than elsewhere, and special attention will be given to buying and forwarding such animals as may be ordered.

LAND SALES.

As a great demand is expected ere long to be made for Landed Estates in the Middle and Southern States, we have opened a correspondence with men of established reputation engaged in the Real Estate Agency, in this State, Virginia and the Carolinas, and copies of pamphlets containing a list of the Farms, location, price, and other particulars, will be kept for the inspection of those wishing to purchase; and we will, with great pleasure, render every facility in furthering the objects of both buyer and seller. To those wishing to advertise in our journal, we will give our aid without any fee further than the cost of the advertisement.

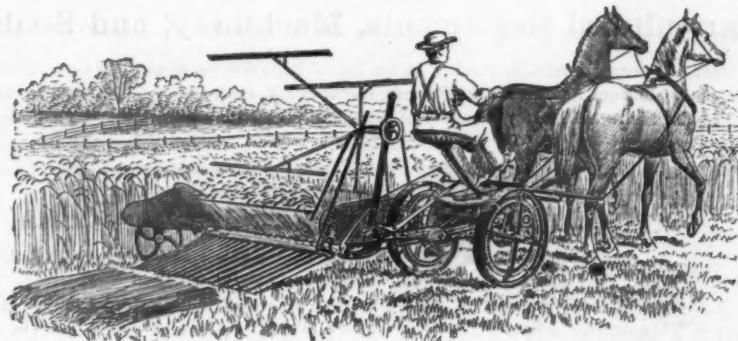
We will at all times be happy to receive, at the sign of the "Golden Plow," our old farmer friends, on visiting the city, whether or not they may have any special business, and will be prepared, with cheerfulness, to give them any aid or advice in our power, without any consideration therefor except the consciousness of being able to render them a service.

OUR TERMS.

As we expect to carry on this portion of our business strictly as an **AGENCY**, we must in all cases require the **CASH** (or its equivalent) in hand to make purchases. The small commissions we may require—and these will, in most cases, be paid by manufacturers, breeders or dealers—will not justify our transacting the business on any other terms. Address

SAML. SANDS & SON,
No. 9 North st., near Baltimore st., Baltimore, Md.,
SIGN OF THE GOLDEN PLOW.

CHAMPION REAPER AND MOWER.



THE
Champion Combined Reaper and Mower,
With Self-Rake and Dropping Attachments.

THE ONLY TWO-WHEELED MACHINE WITH A *WROUGHT IRON FRAME*.

The Cutter-Bar can be raised or lowered to change the height of cut, without stopping the team.

175 THIS MACHINE HAS TAKEN OVER
GOLD MEDALS & First Premiums
IN THE UNITED STATES IN 1871.

It took the First Premium at the Maryland State Fair, held at Baltimore in October last; the Gold Medal at the Great Industrial Exhibition at Cincinnati; the First Premium at the State Fair of Missouri, held at St. Louis.

Over EIGHT HUNDRED of these Machines sold in 1871 by the Baltimore Agency.

L. H. LEE & BRO.,
54 and 56 Light street, Baltimore, Md.

Jan. 1t

THE AMERICAN FARMER.

ESTABLISHED IN 1844.

A. G. MOTT, 40 ENSOR ST.,

NEAR BELAIR MARKET, BALTIMORE, MD.,

MANUFACTURER AND DEALER IN

Agricultural Implements, Machinery, and Seeds,

The latter of pure and reliable stock. In his list of PLOWS, he would call especial attention to that wondrous favorite of the Farmer, the WILEY, both right and left, with reversible Point and Share, which, for economy of wear and perfection of work, has no superior.



Among first class Harvesters, the

AETNA,

With changeable speed and geared reel, still holds an enviable position.

The Maryland State Fair at Pimlico, at the Fall meeting in 1870, and again in 1871,

AWARDED TO THIS SUPERB HARVESTER THE
FIRST PREMIUM.

Sold by A. G. MOTT, who is Sole Agent
for this city.

Send for Pamphlet and Descriptive Circular.

Jan-6m

R. SINCLAIR & CO.

MANUFACTURERS OF

AGRICULTURAL IMPLEMENTS AND MACHINERY,

GROWERS AND IMPORTERS OF

GARDEN AND FIELD SEEDS,

TREES, PLANTS, &c.

62 LIGHT STREET,

BALTIMORE, MD.

OFFER TO THE FARMERS OF MARYLAND AND THE SOUTHERN STATES

VALUABLE LABOR-SAVING IMPLEMENTS AND MACHINERY,

The most of which are of their own manufacture, and are guaranteed to give entire satisfaction to the Farmer and Planter. Catalogues sent on application.

Jan-1t



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THE GREAT SOUTHERN
TOBACCO SUSTAIN
AND
LAND RENEWER.

This Sustain is a specific restorer of the exhausted properties of impoverished and overstrained land.

It gives vigor to the young plant, promotes its rapid growth, and insures, in the matured crop, a thickened, heavy leaf.

It is especially adapted to worn land, and will generously repay the cost of its outlay in the quality and quantity of the *Tobacco Crop*, besides permanently improving the soil and raising it to its virgin standard.

Three eminent Chemists say it has all the prerequisites of a first-class Fertilizer.

It will be its own best advocate with its patrons.

\$50 PER TON. NO CHARGE FOR DELIVERY.

JOSHUA HORNER, Jr.,
54 S. Gay street,

BALTIMORE, MD.

jan-tf.

FOR SPRING CROPS OF 1872.

[ESTABLISHED 1848.]

To the FARMERS and PLANTERS of Maryland and the South generally.

Horner's Maryland SUPER-PHOSPHATE.

(We court the Chemist's inquiry.)

After 23 years' experience in the Fertilizing business, and after establishing a wide reputation for the purity and excellence of his Bone Dust, the subscriber has been induced to prepare a Phosphate suitable to the requirements and every way worthy the attention of the Southern Farmer.

The "MARYLAND" is a rejuvenator and permanent improver of the soil. It stimulates equal to Peruvian Guano, and sustains equal to Bone, being composed almost entirely of these ingredients, with a very liberal percentage of Potash in the residuum. There is no adulterate nor inferior article used—every part of the Phosphate being of essential benefit to the land. Neither pains nor expense have been spared in its preparation, and we claim for it the greatest benefit to the farmer from the smallest outlay.

For Cotton, Wheat and Corn, and as a general stimulant and aliment for worn and impoverished land, there can be nothing superior. It is warranted to run as high in Ammonia, and higher in Bone Phosphate, than any other fertilizer in the market.

Price \$50 per ton, in new bags. No charge for delivery.

JOSHUA HORNER, Jr.,

Manufacturer and General Commission Merchant. Office and Warehouse, 54 S. Gay street. General Warehouse, corner Chew and Stirling streets, BALTIMORE, MD.

Bone Dust \$45, Bone, Meal \$50, Dissolved Bone \$47,

Our own manufacture, in new bags; Eastern and Western Bone Dust, \$35. Peruvian Guano delivered from Peruvian Government Warehouse at the lowest rates. No charge for delivery.

JOSHUA HORNER, Jr.

jan-tf.

Over 6,000 Now in Use!!

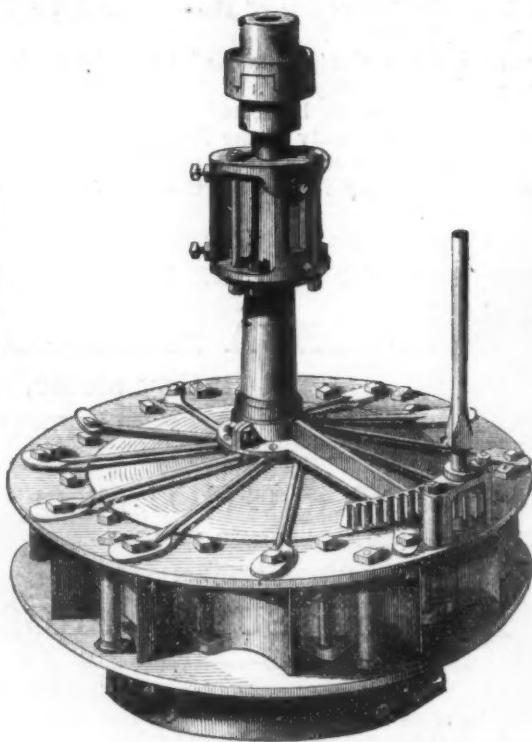
POOLE & HUNT,
BALTIMORE, MD.

Manufacturers of Portable and Stationary

STEAM ENGINES AND BOILERS,

BABCOCK & WILCOX

Patent Tubulous Steam Boilers,



JAMES LEFFEL'S PATENT
AMERICAN DOUBLE TURBINE
WATER WHEEL,

SAW AND GRIST MILLS, FLOURING MILL MACHINERY,
SHAFTING, PULLEYS AND HANGERS,
Machinery for White Lead Works and Oil Mills.

SEND FOR CIRCULARS.

HAGERSTOWN, Md., December 11th, 1871.

Messrs. POOLE & HUNT:

Gentlemen: During my experience in Water Wheels, I have used ten different make of wheels; the last I put in were the James Leffel American Double Turbine Wheels. I am perfectly satisfied with them. They are giving me about double the power I ever had before, and less repairs than any of the others.

Respectfully, &c.,

(Signed,) _____

J. W. STONEBRAKER.